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A FEASIBILITY STUDY OF RESIDENTIAL INTENSIFICATION IN SINGLE-INDUSTRY TOWNS: A CASE STUDY OF HEMLO

March, 1987

A Feasibility Study of Residential Intensification in Single-Industry Towns: A Case Study of Hemlo

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March, 1987

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ABSTRACT

Life-cycles of single-industry/resource-based communities typically progress from "boom" periods of rapid industrial expansion and population growth to "bust" periods of sudden industrial contraction and de-population. The often violent fluctuations in population pose special problems for these communities, in particular, housing problems. The acute housing shortages that typify the expansion stages of single-industry community development often induce housing policies which result in chronic housing surpluses during and after the contradiction stages. This study is motivated by a recognition of the need for special, more flexible housing strategies specifically suited to the unique requirements of "boom/bust" communities. The study examines the flexibility of intensifying the existing stock of housing and serviced land in residential subdivisions in two Northwestern Ontario resource towns currently experiencing rapid population development related to the Hemlo goldfield expansions. Through surveys with community residents and interviews with key municipal and community personnel, and data analyses which measure the physical potential of existing housing, attitudes of homeowners and tenants, and economic and legal variables, the opportunities for residential intensification are determined and discussed. It is concluded that the most critical impediment of residential intensification in the two communities studied is a general unwillingness of homeowners to become landlords and to supply the rental market with intensification-related accommodation. A further significant impediment observed in one of the communities is the restrictive nature of existing residential by-laws which prohibit virtually all forms of residential intensification studied.

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SECTION 1.0

EXECUTIVE SUMMARY

The following study examines the feasibility of residential intensification in Marathon and Manitouwadge, two rapidly expanding single-industry/resource-based communities in Northwestern Ontario. The study has been motivated by the apparent need to develop housing strategies which address the various problems associated with housing shortages which often characterize resource communities in expansionary transition. The rationale of the study also relfects the need for these new housing strategies to recognize the inevitability of long-term community contraction and the potential crises of housing shortages.

The study partially replicates the research design and procedures utilized in an earlier study on residential intensification in Southern and Southeastern Ontario entitled Study of Residential Intensification and Rental Housing Conservation (McInnis et.al., 1983). Residential intensification is defined as a process whereby existing housing stock and/or existing serviced land in established residential subdivisions are made to accommodate additional occupants through the conversion of single-family dwellings into multiple-family dwellings, and through infill developments on vacant or nearly vacant serviced building lots. Feasibility of residential intensification is operationalized for five different types, or models, of intensification include the renting of rooms, the conversion of unused basement space, and the horizontal addition of apartments for owner-occupied, single-detached, grade-related dwellings, as well as the construction of additional single-family, single-detached dwellings on existing residential lots, and the construction of additional multiple-family dwellings on existing mulitiple-family dwelling lots. The six stages of measurement include the physical potential of existing housing stock and serviced land, the potential for the supply of rental accommodation potential tenant demand, the economic factors of intensification, the Municipal residential by-law structure, and the potential resistance of neighbourhoods to residential intensification.

Data was collected by surveys of homeowners and tenants, interviews with key community and Municipal personnel, and physical inventories of existing housing stock and serviced land for Marathon and Manitouwadge between May and December, 1986. The following highlights the major findings:

HIGHLIGHTS OF RESULTS

Marathon

1. The potential for residential intensification in Marathon is strongly enhanced by the physical characteristics of the existing stock of owner-occupied, single-detached dwellings. The volume and distribution of existing floor space in excess of the minimum accommodation requirements of the present population provides potential dwelling space for approximately 2000 additional occupants. This potential exists in the form of single rooms rented out in present single-family dwellings (Model 1), and basements converted into self-contained apartments and rented out in present single-family dwellings (Model 2).

2. The potential for residential intensification in Marathon is mildly enhanced by the lot characteristics of pre-Hemlo subdivisions and the existence of an extensive network of backlanes. There are opportunities to create between 35 and 45 one and two bedroom self-contained apartments with lane access through the construction of horizontal additions (Model 3) throughout the pre-Hemlo subdivisions. In addition, there are infill opportunities with the potential of providing building lots for between 24 and 31 single-detached units (Model 4) of up to approximately 1200 square feet each in the pre-Hemlo subdivisions.

3. There is no potential for residential intensification through infilling around existing apartment complexes with new multiple-family dwelling units (Model 5).

4. Prior to the construction of the new Hemlo housing development (Penn Lake Flats), pre-Hemlo subdivisions possessed the physical potential to accommodate approximately 40% of the households now residing in the single-detached units within the new Hemlo housing development, or approximately 75% of households now residing in the apartment buildings within the new development.

5. A general unwillingness of homeowners to rent out space militates against the potential of residential intensification. Only a small percentage of those Marathon homeowners surveyed report a willingness to rent out a room (8%) or to convert unused space into a self-contained apartment for rental purposes (4%). For the majority who are unwilling to rent out, 40% fear a loss of privacy while 30% perceive their houses as being too small to accommodate additional occupants.

6. Considerable demand exists among current Marathon tenants for self-contained apartments in single-detached dwellings (Models 2 and 3). Approximately half of all tenants surveyed report a preference for renting an apartment in a house (Models 2 and 3) over renting an apartment in a conventional apartment building. Almost no demand exists among surveyed tenants for single rooms in owner-occupied, single-detached dwellings (Model 1).

7. The greatest demand for rental units among surveyed tenants who express a preference for renting an apartment in a house is for self-contained apartments with at least two bedrooms, and which maximize privacy, minimize noise, provide convenient parking, separate entry and yard space, and with monthly rental payments of no more than $400-450.

8. Marathon homeowners have few objections regarding forms of residential intensification confined within the existing exterior structure of houses in their immediate neighbourhods (Models 1 and 2). Approximately 90% of all homeowners surveyed report having no objections against neighbours who rent out rooms and/or create and rent out self-contained apartments.

9. The structure of existing residential by-laws in Marathon strongly militates against the potential for residential intensification.

10. Within the present housing and rental-accommodation pricing structure in Marathon, residential intensification according to conversion models (ie. renting out rooms and self-contained apartments in single-detached dwellings) is in general economically feasible.

Manitouwadge

11. The potential for residential intensificatin in Manitouwadge is initially limited by the existing housing tenure structure. Half of all single-detached, grade-related dwellings in pre-Hemlo subdivisions are presently leased out on agreements which prohibit multiple-family use. All of the single-detached, grade-related dwellings in new Hemlo subdivisions have been purchased with mortgage agreements (10 year minimum terms) which restrict renovations consistent with multiple-family use. In all, less than one-third of the total existing stock of single-detached dwellings in Manitouwadge are occupied by households in a tenure position to decide whether or not to intensify.

12. The existing stock of pre-Hemlo, owner-occupied, single-detached

dwellings has the physical potential to accommodate a maximum of approximately 500 additional occupants through renting out single rooms (Model 1) and converting and renting out basements (Model 2). New Hemlo-related single-detached dwellings have the physical potential of accommodating up to a maximum of approximately 200 additional occupants through Models 1 and 2. However, as already stated, the intensification potential of new Hemlo housing is limited by the exigencies of tenure.

13. There is no intensification potential in Manitouwadge by means of Models 3, 4, and 5.

14. Prior to the construction of the new Hemlo-related housing development, pre-Hemlo subdivisions had the physical potential to accommodate approximately 30% of the households now residing in single-detached units within the new subdivision.

15. Manitouwadge homeowners are generally unwilling to rent out rooms or to convert unused space into self-contained dwellings. Of those homeowners surveyed, virtually none are willing to rent out rooms while only 3% report some interest in renting out an apartment. The majority of homeowners are reluctant due to a fear of losing their existing privacy.

16. The potential demand group for accommodation brought onto the rental market through intensification developments is extremely small in Manitouwadge. In the final analysis, only about 80 current renter households possess the attitudes and characteristics appropriate to the characteristics of the existing physical potential of Manitouwadges owner-occupied housing stock. Virtually all of this potential demand group expresses the desire for self-contained apartments in single-detached houses (Model 2) which ensure privacy, little noise, access to a backyard, parking and a monthly rental rate not exceeding $250.00.

17. Manitouwadge homeowners have few objections to residential intensification taking place in their immediate neighourhoods. Nine out of ten homeowners surveyed report having no objections in regard to neighbours who rent out rooms and/or create and rent out self-contained apartments.

18. The existing residential by-law structure in Manitouwadge is generally favourable towards conversion types of residential intensification. In residential zones, single-family dwellings may legally convert to multiple-family dwellings conditional upon the requirement that only one main dwelling structure per lot is constructed. Infill forms of residential intensification are impeded by restrictions on the number of dwellings structures that may legally be constructed on one lot in residential zones, and by minimum

landscaped area requirements in multiple-family zones (eg. apartment complexes).

19. Within the present housing and rental-accommodation pricing strucure in Manitouwadge, residential intensification according to conversion models is in general economically feasible.

SECTION 2.0

INTRODUCTION

The following study is motivated by an increasing awareness of the problems experienced within single-industry/resource-based communities during stages of contraction and shutdown. In recent years we have seen numerous small, single-employer communities across Canada reduced to mere skeletons by the flight of capital and the subsequent out-migration of labour. In Northern Ontario alone we have witnessed dramatic downsizing of several communities during the past decade. As this report is being written two communities in Northwestern Ontario teeter on the brink of virtual dissolution while several more perceive their future in doubt.

When resource companies withdraw their productive capacities from communities largely dependent on those capacities for economic survival, the short-term consequences are almost never consistent with a complete evacuation of community population. While the number of residents typically decreases significantly, some residents choose to remain in the absence of the major employer. Some of these "loyal" residents may be existing retirees, or those displaced workers who have the option to select early paid retirement, or retail and service workers in the diminished private sector, or civil servants, or unemployed welfare recipients. The problems of community adjustment to the loss of economic viability and population weigh heavily on the shoulders of those residents who are left behind. In fact, in many cases it is the problems of adjustment that force some residents to remain, in one sense or another not being able to afford to re-locate.

One significant problem of adjustment relates to housing. Housing supply is relatively inelastic, particularly in the sense of reducing supply. It is certainly inelastic relative to the supply of labour which, when in weak demand as in the case of company shutdowns, adjusts downward quickly and effectively. Housing supply when in weak demand does not adjust downward as effectively. When labour exits a community in contraction, the supply of housing for the most part remains static.

The implications of a sudden under-utilization of existing housing stock are many, and most have a negative impact on the community that remains. Housing prices often plummet, forcing many homeowners to helplessly watch their equity, which may have taken years to accumulate, erode signicantly almost overnight. In many cases, a decision to leave the community means leaving one's house to the mortgagor, or selling for a fraction of its previous market value. For those who remain, there is the constant threat of increasing vacancies throughout the communities which lead to decreasing rates of property management and upkeep. Aside from contributing to the downward escalation of property values, deteriorating houses and overgrown lots pose a threat to the pride and overall social concept of the remaining community.

While the municipal tax base diminishes along with the population, the municipal tax burden remains largely unaffected. Hard and soft services must still be provided throughout all residential subdivisions for the residents that remain. The new tax deficit is often passed on in part to the remaining community members and, in special cases, to the provinical government as well. The expected consequence is that the remaining residents will end up paying higher property taxes for the same, and in some instances, fewer services.

That all single industry communities must eventually face contraction seems to be an incontrovertible reality. If we are going to condone a system which allows capital every opportunity to invest and dis-invest almost at will regardless of social impact, then we must develop ways to lessen the impact of capital disinvestment in small, dependent communities. The best point at which to prepare for a milder impact is in the investment stage. The impact of contraction on community members can be lessened by careful planning in the early stages of the expansion, or "boom" period of these communities.

In regard to housing, careful thought must go into the decision to create new housing developments and into the design of these developments. Ideally, new housing supply in single-industry towns should incorporate high levels of elasticity and flexibility which would allow quick and effective contraction of supply in periods of population contraction. This would serve to minimize the negative effects of adjustment on both the residents who choose to leave the community and the community that's left behind.

One method of incorporating elasticity into new housing supply is to build upon the existing stock of housing structures and services. Of course, this would only apply to cases where such stock existed; for example, in the case where a community faces expansion due to increased productive capacity and the subsequent growing demand for labour. This type of two and three (etc) stage development is quite common in single-industry towns.

The advantages of this type of residential intensificatin are many. In the first place, this type of housing development often supplies affordable rental accommodation of relatively small dimensions when compared to the single-detached units typical of new housing developments. This type of accommodation is experiencing a general increase in demand in urban population centres due to emerging economic and demographic trends. In an era of economic uncertainty, more people are viewing home ownership in uncertain terms. Rental accommodation is increasingly providing the affordable alternative. For potential home buyers, renting out rooms and apartments often represents the financial solution and decision-making incentive to purchase.

Due to the changing age structure of the population, in particular the declining number of people in the 15-34 age groups (family formation years), family households growth is projected to decline throughout the 1990's, the average age of household will continue to increase, and the average household size will continue to decrease (Clayton Research Associates, 1983:12-13). These demographic trends are consistent with rising demand for smaller dwellings of the sort provided by conversions of existing stock.

In small resource-based communities, the economic and demographic trends are less discernible due to regular and often violent fluctuations in expansion and contraction. Migration of population is often irregular and economic factors related to housing are typically unpredictable due to the wide range of employer subsidization programs. Nevertheless, residential intensification may serve the community in a number of ways. During periods of expansion, additional dwelling units can be created without costly new land development projects and the many attendant services. By merely increasing the utilization of existing infrastructure, many new costs are avoided and property taxes remain largely unaffected.

Conversely, during periods of contraction and population decrease, residential subdivisions are likely to remain more homogeneously occupied having been intensively occupied intially. Fewer dwellings will be left completely vacated and subject to deterioration. Market values will be more resilient. The burden of property tax is likely to remain relatively equal to pre-contraction levels. For community members who decide to re-locate, out-migration will in general terms be made easier by a housing tenure structure characterized by a relatively low ratio of owners to renters. For those who choose to remain, community spirit and pride are more likely to remain relatively bouyant in absence of the typical ghost-town aesthetics which usually plague communitities in contraction.

SECTION 3.0

STUDY OBJECTIVES

Objective 1

The main objective of the following study is to examine the feasibility of residential intensification in two small Northwestern Ontario resource-based communities. For the purposes of this study, residential intensification is defined as a process whereby existing housing stock and/or existing serviced land in established residential subdivisions are made to accommodate additional occupants through the conversion of single-family dwellings into multiple-family dwellings, and through infill developments on vacant or near vacant serviced building lots. The nature and level of residential intensification potential is determined by an examination of the opportunities afforded by existing stocks of dwellings and lots, and the possible constraints imposed by such factors as the economics of intensification, municipal by-law restrictions, attitudes and expectations of homeowners and tenants, and neighbourhood resistance.

The present study represents a partial replication of a study prepared for the Ontario Ministry of Municipal Affairs and Housing and the Association of Municipalities of Ontario entitled Study of Residential Intensification and Rental Housing Conservation (March, 1983). Having been conducted in large urban centres in Southern Ontario where there exists a relatively broad range of structural forms and land use patterns, the authors defined seven basic forms or models of conversion and infill. For the present study, five models of conversion and infill are employed reflecting the more limited range of structural forms and land use patterns to be found in small rural communitites. The five models of conversion and infill are as follows:

Model 1	Changing owner-occupied, single-detached, grade-related dwellings from single-household use to accommodate a number of unrelated households or individuals with no or minor physical alterations (e.g., renting out to a roomer).
Model 2	Changing owner-occupied, single-detached, grade-related dwellings from single-household use to multiple-household use by the creation of self-contained apartments (e.g., basement apartment with private kitchen, bathroom, living and sleeping space).
Model 3	Changing owner-occupied, single-detached, grade-

	related dwellings from single-household use to multiple-household use by the horizontal addition of a self-contained apartment with separate access to a public road or backlane.
Model 4	Infilling an existing serviced lot with a single-detached dwelling presently in place with a second single-detached dwelling with separate access to public road or backlane (e.g., back lot development)
Model 5	Infilling an existing serviced lot with a multiple-family development presently in place with one or more multiple-family developments (e.g., infilling landscaped open space around an existing apartment complex with additional complexes.)

In keeping with the approach established by the original study, the present partial replication examines the opportunities and constraints associated with residential intensification Models 1-5 according to the following factors:

The Physical Potential of Existing Stock on Hand

The complete inventory of owner-occupied single-detached, grade-related dwellings stock and serviced land is examined for convertability, present rate of utilization and potential for increased utilization.

The Economic Factors Associated With Intensification

Those models of intensification which demonstrate significant physical potential are examined in terms of their creation costs and their break-even rental rate requirements.

The Supply Process Associated With Intensification

The nature and level of the potential supply of intensification-related rental accommodation is determined by means of an examination of the willingness of owners of single-detached, grade-related dwellers towards becoming landlords.

The Potential Market Demand for Intensification-Related Rental Accommodation

The nature and level of potential demand for intensification-related rental units is determined by identifying the relevant potential demand group and examining its household characteristics and rental preferences.

The Neighbourhood Resistance to Residential Intensification

> The nature and degree of opposition to residential intensification is determined for community homeowners.

The Impact of Municipal Residential By-Laws on Residential Intensification

> Residential by-laws governing dwelling and land use are examined to determine their impact on residential intensification.

Marathon and Manitouwadge, Ontario

Marathon and Manitouwadge have been selected for this study because of the unique opportunity they provide for studying the dynamics of small resource-based communitites in expansionary transition. Marathon is situated on the shore of Lake Superior approximately 300 kilometers east of Thunder Bay. Originally a CPR construction camp, it later became the location for the Marathon Pulp and Paper Company of Canada in 1944. In 1983, James River Ltd. took over pulp production. At about the same time the small community of some 2000 residents became inundated with the trappings of gold fever.

Manitouwadge, approximately an hour's drive northeast of Marathon on Highway 614, started up in 1954 with the commencement of copper and zinc mining by Wilroy Mines and Geco Mines. Noranda is presently the main employer with interests in copper, zinc and just recently, gold. Manitouwadge, too, has experienced significant impacts from the discovery of gold.

Both communities service the needs of the Hemlo gold mining operations. Hemlo, described as one of the largest goldstrikes in Canadian history (Knoll, 1984:20), consists of one main ore body located between the two communitites. It is presently worked by three mining companies: Noranda, Lac Minerals and Teck-Corona.

Hemlo has induced dramatic increases in population growth in Marathon and Manitouwadge. Manitouwadge is expected to have increased in population from 3,200 in 1981 to 4,500 in 1989 while Marathon is expected to have increased from 2,300 to 4,200 over the same period (Stafford et al, 1986:25).

Hemlo has also placed extreme demands on the resources of each community; in particular housing resources. In Manitouwadge it is estimated that almost 500 new housing units will have been required between the early stages of Hemlo development and 1990 (Ministry of Municipal Affairs, 1985:10). In Marathon approximately 650 new dwelling units are estimated to satisfy the demand for Hemlo-related accommodation (Ministry of Municipal Affairs, 1985:46). These figures represent increases of close to 100% over the number of dwelling units existing in each community prior to the Hemlo expansion.

As we are now aware, these new dwelling units are already being provided through the development of new housing and service infrastructure in both communitities. These new housing developments have not come cheaply. In Marathon, the hard service costs associated with its new housing development (extension of trunk and main sanitary sewers, development of additional water sources and storage, water mains, sewage treatment, roads, sidewalks, streetlights) had amounted to a total gross of $10.6 million by 1985 (Ministry of Municipal Affairs, 1985:67). Marathon's 1985 operations expenditures were 80% higher than in 1980 (Ministry of Municipal Affairs, 1985:71). Marathon residential mill rates (property tax burden) had increased between 1980 and 1985 by about 65% (Ministry of Municipal Affairs, 1985:79).

In Manitouwadge, new Hemlo-related residential development has occured at a significantly lower rate than in Marathon. By 1985, approximately $2.4 million had been invested in infrastructure related to new housing (Ministry of Municipal Affairs, 1985:31). This is still a large percentage of total capital expenditures, however. It represents almost 35% of total capital expenditures betweeen 1980 and 1985. If we exclude expenditures on the construction of the new airport, capital expenditures on Hemlo-related residential development represent almost 70% of total capital expenditures between 1980 and 1985. Manitouwadge's operations expenditures have increased by 109% over the same period (Ministry of Municipal Affairs, 1985:36). Manitouwadge's residential mill rate has increased by 115% over the same period (Ministry of Municipal Affairs, 1985:42).

But these are just the housing costs born by Municipal residents and Provincial taxpayers during the expansion stage. Additional costs of new housing in single-industry towns are incurred during the contraction stage; when, for example, the ore body no longer returns competitive rates of profit on invested capital and the main employer shuts down. Property values decline, out-migrating homeowners lose on their invested equity, and those who remain behind must suffer the ravages of residential obsolescence and rising property taxes.

Much research has commented on the irrational and undirected "planning" processes that have characterized residential development in single-industry towns (Stelter, 1974;Golz, 1974;Baldwin, 1978;Luxton, 1980). New housing developments in small, dependent single-industry communitities which follow the pattern set in large, urban, economically diversified centres are likely to eventually face virtual obsolescence in the same way that such developments in Northern Ontario communities are presently facing obsolescence. New housing stock has a possible life span of over 50 years. Single-industry communitities rarely last 25 years.

Objective 2

Residential intensification may be a more rational approach to addressing rising housing demand in single-industry/resource-based towns. The second objective of the present study is to determine to what extent the physical potential of the housing stock that existed prior to the development of new Hemlo-related housing stock (i.e. pre-Hemlo housing stock) could have possibly been utilized to accommodate the increasing population of Marathon and Manitouwadge. Put another way, to what extent could have old pre-Hemlo housing served as an alternative to new Hemlo-related housing?

Because this second objective is constrained by the replication imperative of the first objective, the appropriate methodologies to conduct an intensive examination of a more comprehensive approach to the residential intensification of pre-Hemlo housing stock have not been administered. That is, we have been unable to effectively determine the economic factors, the attitudes of pre-Hemlo homeowners and the expectations of in-coming, Hemlo-related residents that were in existence during the incipient stages of expansion. To do this would have required the application of methodologies inconsistent with those of the original study being replicated. Therefore, the second objective is to be viewed as a tentative first step for future research.

SECTION 4.0

RESEARCH DESIGN AND PROCEDURES

The feasiblity of residential intensification is operationalized through six stages in the present study. The following section identifies and defines these six stages and describes in detail the data collection methodologies utilized.

1. PHYSICAL POTENTIAL OF EXISTING HOUSING STOCK

Fundamental to the nature and potential extent of residential intensification in any setting is the requirement that the existing stock of dwelling units and serviced land have a physical capacity to utilization ratio of greater than unity. That is, the housing stock must possess the physical capacity to accommodate an increased number of occupants above present rates of utilization and/or the stock of serviced land must have the physical capacity to provide for the creation of additional living space beyond that which is already provided by existing floor area if residential intensification is to be at all possible. Residential intensification is firstly dependent, therefore, on the physical potential of existing dwellings and serviced land.

Physical potential is determined through three stages. Firstly, an up-to-date housing stock and land inventory has been undertaken for both Marathon and Manitouwadge. Fieldworkers have conducted an exhaustive physical inventory of every dwelling and residential building lot within the Municipal boundaries of each community. Dwelling characteristics such as number of storeys, with/without basement, single-detached, semi-detached, row, apartment, etc., and lot characteristics such as single lot, double lot, triple lot, length of lot, dwelling placement, relation to backlane, etc., were all determined and recorded. From this information a complete housing and land inventory has been prepared for each community indicating the volume of the different housing structural types and an estimate of the number of additional building lots for horizontal additions (Model 3), single-detached units (Model 4) and multiple-family units (Model 5).

The second stage in the determination of physical potential has entailed a survey of a randomly selected sample of owners of single-detached, grade-related houses in both communitities. Each sample was selected from the 1986/87 Northwestern Ontario Telephone Directory for Marathon and Manitouwadge. In Marathon, a telephone interviewer administered a 34 item questionnaire (Appendix A) to a total of 80 homeowners during May and June of 1986. In Manitouwadge, a telephone interviewer administered the same questionnaire to 76 homeowners during November and December of 1986. Potential respondents were first screened to ensure that they did not reside in a condominium, co-op, or duplex, that their present dwelling did not contain a self-contained apartment, that there were no unrelated individuals living in their present dwelling, and that they were not currently landlords in relation to any other dwelling. Collected data provided information about household characteristics and attitudes of owners of single-detached, grade-related dwellings in each community.

The third stage in the determination of physical potential has entailed a calculation of the gross floor area/person ratio for the study sample and an estimation of the amount of surplus living space existing within the sample dwellings and the number of additional occupants this surplus could potentially accommodate. This stage entails the inclusion of data collected from the physical housing stock and land inventory, the homeowner survey and the records of the local building inspection offices. Consideration has been given to both Model 1 and Model 2 forms of intensification. Extrapolations from survey data to the physical potential of the total stock of owner-occupied, single-detached, grade-related dwellings is provided for each community.

2. THE SUPPLY OF INTENSIFICATION-RELATED RENTAL ACCOMMODATION

The willingness of homeowners to engage in conversion and infill projects and, in effect, to become landlords and supply the rental market with additional accommodation space is a critical factor in the determination of the feasibility of residential intensification. There is a wide range of motivations which may induce homeowners to rent-out rooms or create and rent-out apartments in their houses, just as there is an equally wide range of fears which may induce them to look upon renting out in a negative fashion. Understanding the attitudes and expectations of the owner-occupants of the housing stock upon which residential intensification depends is as important as understanding the physical potential of the stock itself. Furthermore, understanding the ways in which homeowners view the prospects of renting-out may assist efforts to convince them to do just that. The physical potential of existing housing stock cannot be altered, but the attitudes of homeowners can.

The extent to which owner-occupants of single-detached dwellings are willing to rent out unused living space in their houses, and which forms of renting out they are most likely to consider, is determined through an analysis of data collected from the homeowners survey described above. Information on the household characteristics of the potential landlords is provided for both communitities as well as their reported reasons for either considering or not considering renting out. Extrapolations from sample findings are made to the total populations of potential landlords in each community with implications regarding the magnitude of supply of both Model 1 and

Model 2 forms of intensification.

3. TENANT DEMAND FOR INTENSIFICATION-RELATED RENTAL ACCOMMODATION

In free-market systems, the driving force behind supply is demand. This is not to suggest that in every instance where demand exists supply will automatically appear, for there are often militating factors which oppose the perfect relationship. It does suggest, however, that supply will not exist, and persist, in absence of demand. Demand, then, and the exigencies of demand which leave their peculiar imprint on supply, is a critical factor in the determination of the nature and extent of supply. Residential intensification only becomes feasible at the point when tenants make demands on the existing housing stock for rental accommodation. Furthermore, the forms that residential intensification may take-on are highly dependent on the characteristics of demand; that is, the preferences of tenants. The present study, then, measures the extent of tenant demand for intensification-related rental accommodation in Marathon and Manitouwadge and the peculiarities of that demand.

A survey of randomly selected tenants currently residing in various forms of rental accommodation has been conducted in each community. Each sample was selected from the 1986/87 Northwestern Ontario Telephone Directory for Marathon and Manitouwadge. In Marathon, a telephone interviewer administered a 25-item questionnaire (Appendix B) to a total of 49 tenants during May and June of 1986. In Manitouwadge, a telephone interviewer administered the same questionnaire to 59 tenants during November and December of 1986. Potential respondents were first screened to ensure that they did not pay rent to the government or other non-profit organizations and that they were not receiving government assistance in meeting their rental payments. Collected data provided information regarding household characteristics, rental accommodation preferences, future plans, etc, of current tenants.

4. NEIGHBOURHOOD RESISTANCE TO RESIDENTIAL INTENSIFICATION

In an attempt to determine the level of opposition among homeowners in each community towards residential intensification in their immediate neighbourhoods, surveys were conducted in Marathon and Manitouwadge. Randomly established samples were selected from the 1986/87 Northwestern Ontario Telephone Directory for Marathon and Manitouwadge. In Marathon, a telephone interviewer administered a 15-item questionnaire (Appendix C) to a total of 41 homeowners during May and June of 1986. In Manitouwadge, a telephone interviewer administered the same questionnaire to 46 homeowners during November and December of 1986. Collected data provided information on household charactersitics, levels of opposition to residential intensification, preferences in new neighbourhood households, etc.

5. THE ECONOMIC FACTORS OF RESIDENTIAL INTENSIFICATION

Residential intensification costs the homeowner money. In order to be considered economically feasible, the homeowner must be able to gain financially from his/her investment in bringing intensification-related rental accommodation onto the market. While there may be several ways in which a homeowner could benefit financially from renting out (e.g., allows him/her to be able to afford to purchase a house, allows for the purchase of a larger house, allows him/her to be able to continue to afford the mortgage on a house during periods of financial difficulty, etc), the present study is mainly concerned with the purely economic benefits that may accrue to invested capital. That is, we presume upon the homeowner a rational, investor's model. Capital invested by the homeowner in the creation and operation of rental accommodation must provide an economic return equivalent to at least the break-even point in order to be considered economically feasible.

Two critical factors in the pre-determination of economic feasibility are the creation and operation costs of intensification-related rental accommodation and the market value for such accommodation. For the purposes of this study, the costs associated with bringing rental accommodation onto the market are determined for several hypothetical scenarios consistent with Models 1 and 2 for both Marathon and Manitouwadge. Information relating to the various costs involved (e.g., acquisition costs, taxes, insurance, heating and utilities, etc) has been obtained through local contractors, building inspection office and real estate professionals. On the basis of capital invested, break-even monthly rents for the various hypothetical, intensification-related rental accommodation scenarios are established.

The approximate present market value for the various hypothetical rental accommodation scenarios is estimated for Marathon and Manitouwadge by referring to the monthly rental rates and rental unit characteristics data collected from the survey of tenants in each community. The break-even rents for the hypothetical rental units are compared to actual average rental rates for similar rental accommodation in each community to determine if the break-even rents of intensification-related accommodation are competitive or non-competitive, and hence whether residential intensification through Model 1 and/or Model 2 is likely to be economically feasible in Marathon and Manitouwadge.

6. MUNICIPAL BY-LAWS RELATING TO RESIDENTIAL INTENSIFICATION

Through discussions with the by-law officers of both Marathon and Manitouwadge, and an analysis of the provisions of the current residential by-laws themselves, the feasiblity of residential intensification in both communitities is viewed from a legal perspective

SECTION 5.0

THE FEASIBILITY OF RESIDENTIAL INTENSIFICATION IN MARATHON

5.1 THE PHYSICAL POTENTIAL OF EXISTING HOUSING STOCK

The total residential area of Marathon can be seen to be divided into three relatively distinct subdivisions. The oldest subdivision is approximately 40 years old and was constructed by the Marathon Paper Mills Company of Canada. The inventory of existing stock and available lots for this old section is:

Single-detached dwellings	258
Row house units	52
Apartment units	72
Mobile units	18
Vacant housing lots	0
Vacant mobile home lots	8-10

The most prevalent form of single-detached dwellings in this old section is the two storey square/rectangular frame with basement, front and rear entrance, centre hallway/stairway and hipped roof. Floor space for the two storeys above grade range from approximately 900-1200 square feet with the majority falling between 900 and 1000 square feet. Basement areas are not accessible by a separate entrance, provide relatively little headroom, are characterized by few, and in some cases, no windows and are broken up by numerous support columns and heating and plumbing appliances. The two storey dwelling form represents an estimated 85-90% of total single-detached units present in this subdivision.

The physical potential of Model 1 can only be determined by means of an analysis of gross floor area/person ratios. That is, we know that all the dwellings in Marathon have the necessary facilities to potentially accomodate roomers who are unrelated to the owner-occupants, but we do not know to what extent existing rates of dwelling utilization militate against such intensified accomodation. The potential of Model 1 vis-a-vis existing rates of utilization is discussed in section 5.1.3.

The physical potential of Model 2 is limited by the fact that conversion opportunities for the two storey housing form exists above grade only. The most practical and cost effective renovation would convert the structure into two self-contained one bedroom or bachelor apartments. Each apartment would occupy a separate floor accessed by a shared front entrance and vestibule. Each apartment would provide approximately 400-500 square feet of living space, a full bath, eat-in kitchen and a separate living room and bedroom or a bed-sitting arrangement.

The second most prevalent single-detached dwelling form is the rectangular bungalow with basement, three bedrooms, one bathroom with gable roof. Floor space above grade ranges from about 700-900 square feet. Once again, given limited headroom in the basement, practical conversion potential is restricted to above grade. This dwelling form represents an estimated 10-15% of total single-detached units present in this subdivision.

There are presently 18 mobile homes occupied on lots which belong to and are rented from the James River Pulp and Paper Company. Approximately 8-10 empty serviced lots are presently available. However, it is the current policy of the Municipality to prohibit any further mobile unit placements in this section and is, in fact, acting to phase out existing units. The intentions of the land holder are unclear. While the infill potential of this section is significant, present zoning and tenure restrictions rule out immediate development possibilites.

Infill potential is limited by the fact that there are no empty housing lots available. There are generous corner and semi-circular lots which appear physically capable of accomodating a second unit, but these are few and would provide space for no more than four to six new units. Appendix D provides examples of these types of lots.

There is a network of six backlanes in this old subdivision of Marathon that used to be used to deliver coal to the backs of houses. These lanes infringe upon the lots of the adjacent houses and act to shorten the length of the lots. While these backlanes potentially provide excellent opportunities for separate access to additional infill units, in reality the majority of lots are either too short to accomodate a second unit, or the present structure is located too far back on the lot to allow enough space. Appendix E provides examples of plot plans which demonstrate this point.

Some lots with backlanes are long enough to potentially accomodate second units and the existing dwellings are situated close enough to the main road to facilitate this potential. Appendix F provides examples of such lots. Again, however, these lots are few. Our housing stock and lot inventory for Subdivision One suggests an estimate of between five and ten additional lots for infill purposes.

Infill potential around existing row houses and apartment buildings is essentially nil given the lack of space. One parcel of open space of significant proportions (approximately 200 feet by 200 feet) adjacent to the senior citizens' complex is as yet undeveloped and does offer considerable physical potential for a multiple-family unit. However, the Thunder Bay Housing Authority presently has control of the space and is apparently undecided as to its intentions.

The network of backlanes in Subdivision One offers a unique opportunity for significant intensification by means of horizontal additions to the backs of existing dwellings (Model 3). Units of this type would provide the tenant with the convenience of separate entry and private driveway. Units could range from 500-800 square feet of floor space and still, in the case of the majority of lots with backlanes, maintain a maximum lot coverage well within existing residential by-law requirements. We estimate that this opportunity provides the physical lot potential for an additional 35-45 bachelor, one and two bedroom self-contained apartments in Marathon's oldest residential area.

5.1.1 Marathon Residential Subdivision Two

The second distinct residential subdivision within Marathon is that which was constructed approximately 20-30 years ago. The Marathon Corporation provided cheap serviced lots with excavated basements upon which owners could build their own houses. The following indicates the present housing stock and lot inventory for Subdivision Two:

Single-detached dwellings	286
Semi-detached dwellings	1
Row house units	0
Apartment units	0
Mobile units	0
Vacant housing lots	2
Vacant mobile lots	0

The single most prevalent form of single-detached dwelling in this residential section is the one storey bungalow. This housing form represents 97% of all single-detached dwellings. The remaining 3% is comprised of a small number of split-levels and one and one-half storey "Cape Cods". The lone semi-detached structure represents the only official multiple-family structure in this section.

Above grade floor space for the single-detached bungalows range from approximately 950-1350 square feet with the majority falling between 1000-1100 square feet. About 90% of all single detached bungalows have full basements with good headroom and rear split entrances which allow for separate access with minimal renovations. Typically, the single-detached bungalows of this section provide for three bedrooms, living room, dining room, kitchen and full bath on the main floor.

The greatest physical potential for intensification in Subdivision Two is represented by Model 2. In particular, the conversion of unfinished basements to self-contained one and possibly two bedroom apartments offer considerable opportunities to increase the number of households residing in this subdivision.

According to our housing stock and lot inventory, 254 basements exist in Subdivision Two. Of course, not all of these basements are likely to lend themselves to conversion for a number of reasons. Firstly, a certain percentage of these basements have already been finished not as self-contained aparments but rather as additional living space for the owner-occupant and his/her family. According to our telephone survey of homeowners in Subdivision Two, 18% report having finished their basements to increase family living space. The remaining 82% of basements are potentially available for conversion or are presently already converted into self-contained apartments.

Basements which have been finished as additional living space for the owner-occupant are not considered to represent potential for intensification. Furthermore, basements which have already been converted to self-contained apartments are not considered to represent potential for additional intensification. We can estimate the number of Subdivision Two basements which have already been converted to self-contained suites by referring to the data collected by the homeowners' survey screening sheets. Homeowners were asked if they had any self-contained apartments in their houses, and if so they were not interviewed. However, from the number of Subdivision Two homeowners who reported already having had converted, we estimate that approximately 6% of the total number of basements are presently utilized as apartments and are therefore unavailable for further intensification purposes.

Taking into consideration the number of basements which have been finished in single-family dwellings (18%) and those converted in the multiple-family dwellings (6%), there remain approximately 190 basements potentially available for intensification purposes in Subdivision Two.

The infill potential of Subdivision Two is limited by the fact that there are no apartment buildings in the area around which to construct additional multiple-family units. Although housing lots are generally wider (10-15%) and longer (20-40%) than those in Subdivision One, Subdivision Two does not have a network of backlanes to take advantage of the extra lot space.

There does exist, however, one backlane which potentially provides access for 13 additional lots approximately 70 feet wide by 65 feet long. Bungalows of 1200 square feet constructed on lots of this size would be well within the maximum lot coverage requirements of existing residential by-laws. Presently, the municipality does not maintain this backlane.

5.1.2 Marathon Residential Subdivision Three

The third distinct residential subdivision in Marathon is made up of dwellings constructed within the past 5 years to accommodate Hemlo's expanding manpower needs. Both Lac Minerals and Teck-Corona have financed numerous single-detached units and major apartment complexes. The following indicates the present housing stock and lot inventory for this new subdivision:

Single-detached dwellings	303
Semi-detached	0
Row house units	0
Apartment units	144
Mobile units	67

The Hemlo subdivision, known as Penn Lake Flats, represents the major thrust in Marathon's program of population accommodation. The subdivision is characterized by a variety of housing forms: multi-levelled splits with both rectangular, irregular and L-shaped foundations; raised bungalows with finished basements, a small number of Cape Cods and two storey structures; mobile homes and apartment complexes.

The single-detached housing form represents the most prevalant type of accommodation. Floor area above grade ranges from approximately 1150-1450 square feet with the majority of single-detached houses falling between 1200 and 1250 square feet. While a considerable degree of architectural variation exists in the Penn Lake Flats subdivision, typically the single-detached houses are of a three bedroom capacity with kitchen, dining room, living room and full bath. Full basements with eight foot ceilings and, in many instances, split entry systems provide excellent potential in the majority of single-detached units for the creation of self-contained one and two bedroom suites of approximately 800-900 square feet (allowing 300-400 square feet for furnace equipment, laundry facilities, shared hallway and stairs).

There is indication that the majority of basements in Subdivision Three are presently unfinished and potentially available for intensification purposes. According to our homeowners' survey, only 17% of homeowners report that they have finished their basements in order to provide their families with additional living space. According to our homeowners' screening sheets, not one Subdivision Three homeowner has converted his/her basement into a self-contained apartment. On this basis, we estimate that approximately 251 basements are potentially available for intensification purposes.

Infill potential in Subdivision Three is essentially non-existent. Firstly, there are not backlanes present which would allow for separate access to dwellings constructed in the backyards of existing houses. Secondly, the apartment buildings and their accompanying parking areas do not appear to leave sufficient space to accommodate additional multiple-family dwellings.

Subdivision Three contains a total of approximately 450 serviced lots and an additional 130 lots which are surveyed only. Of the serviced lots, we estimate there to be about 30 presently vacant. However, because these lots do not qualify according to our strict definition of an infill lot, and more importantly because we do not know whether the lots are about to be filled with new contruction, we have chosen not to include these vacant serviced lots in our estimate of current physical potential.

From the preceeding examination of Marathon's existing housing inventory, it is apparent, at least at first glance, that considerable physical potential for residential intensification exists on the basis of physical structure. The following table indicates the total Marathon housing inventory by pre-Hemlo and Hemlo subdivisions. Subdivisions One and Two constitute the pre-Hemlo housing inventory while Subdivision Three (Penn Lake Flats) represents the Hemlo housing inventory.

Table 5.1.A Marathon's Housing Inventory in all subdivisions

	Pre-Hemlo Subdivisions	Hemlo Subdivisions	All Subdivisions
Single-detached units	544	303	847
Semi-detached units	2	0	2
Row units	52	0	52
Apartment units	72	144	216
Mobile units	18	67	85
Total units	688	514	1202

The new Hemlo housing development has increased the total number of dwelling units in Marathon by 514, or approximately 75%. An important question that motivates the present research is whether, and to what extent, the housing stock that was in place prior to the Hemlo housing development would have been physically capable of accommodating the increasing population associated with the gold field expansion.

The following table indicates the estimated physical potential for additional units and additional infill lots by pre-Hemlo and Hemlo subdivisions.

Table 5.1.B. Marathon's Physical Potential for Additional Dwelling Units and Infill Lots

	Pre-Hemlo Subdivisions	Hemlo Subdivisions	All Subdivisions
1-2 Bedroom self-contained basement apartments	190	251	441
1 Bedroom/bachelor self-contained 2nd storey apartments	219	0	219
1-2 Bedroom self-contained horizontal additions with lane access	35-45	0	35-45
Infill, residential building lots for single-detached units	24-31	0	24-31
Total Potential Units	468-485	251	719-736

Pre-Hemlo subdivisions are estimated to possess the physical potential of providing the Marathon rental market with a maximum of approximately 500 additional self-contained dwelling units through the application of Models 2, 3 and 4. This number of additional units represents approximately 70% of the total number of dwelling units for the two pre-Hemlo subdivisions. It suggests that seven out of every ten dwellings in Marathon have the basic physical potential of offering at least one additional self-contained apartment.

If we assume that this same basic physical potential existed prior to the new Hemlo housing development, we can see that, theoretically, the pre-Hemlo subdivisions had considerable potential in substituting for new housing stock. Approximately 500 new dwelling units were created to absorb the Hemlo population expansion, while approximately the same number of potential dwelling units existed within the established housing stock. Given that this established housing stock is largely controlled by owner-occupants as opposed to renters (Marathon single-detached dwellings: 91% owned; 9% rented-Census, 1981), the vast majority of dwellings are free from absentee landlords and the restrictions they often impose on change.

However, raw physical potential does not tell the whole story. A number of factors operate to militate against the complete utilization of the aggregate physical potential of existing housing stock for residential intensification. For example, municipal by-laws, community resistance to residential intensification, the extent of homeowners' willingness/unwillingness to rent out and/or convert, economic feasibility of conversion, market demand for rental accommodation, and the extent to which housing stock is presently utilized are all likely to have some impact on the degree to which physical potential is actually realized.

It is to this latter factor-the extent to which housing stock is presently utilized, that we now turn our attention. We focus on Model 1 and Model 2 and the impact of present rates of utilization on their ultimate physical potential for intensification. Rates of utilization shall be operationalized in terms of gross floor area/person ratios.

5.1.3 Physical Potential of Model 1

In this section we examine the above-grade physical potential of the owner-occupied, grade-related, single-detached housing stock in Marathon for residential intensification consistent with Model 1. An important factor in the determination of this potential is existing gross floor area/person; that is, the current rate of actual utilization of existing dwelling space. Based on the Ontario Building Code requirement of a minimum of 250 square feet per bachelor unit, we can set a minimum gross floor area/person ratio at 250 (McInnis,1983:12,(V.3)). That is, the minimum reasonable floor space in any residential dwelling for each person should be 250 square feet.

For example, a dwelling of 1000 square feet of floor space housing three people would theoretically afford an extra 250 square feet of floor space above and beyond the minimum needs of the present three occupants. This would allow dwelling space for one more person while maintaining the minimum gross floor area/person ratio at 250. Potentially, then, the 1000 square foot dwelling could house four people rather than only three. The addition of the fourth person would represent a means by which the residential potential of this particular example could be fulfilled. The additional person could reside as a roomer and therefore little or no structural renovations would be required.

An estimate of the gross floor area/person ratio for Marthon's owner-occupied, grade-related dwellings has been determined on the basis of a random sample of 80 owner-occupied, grade-related, single-detached dwellings. Firstly, homeowners were asked what number of persons resided in their dwellings. Responses were summed providing a total number of persons making up the 80 households.

Secondly, gross floor area of the 80 selected dwellings was determined by obtaining plot plans from the local building inspection office for each dwelling. Floor space was first determined for each dwelling on the basis of the foundation dimensions indicated on each plot plan. Because the plot plans gave no information as to the physical nature of the dwellings (eg. bungalow, one and one-half storey, two storey, etc.), each plot plan was cross-referenced with questionnaire data which indicated dwelling type. The total square footage of floor space for each selected dwelling was determined by considering the number of storeys above-grade only. Reduced floor space on the second storey of one and one-half storey dwellings due to structural design was not a concern in the calculations given that none of the selected dwellings were of this type of design.

Bungalow floor space is estimated simply as the equivalent of the length and width of the foundation itself. Two storey floor space is estimated as the equivalent of the length by width of the foundation times two minus 7% for space taken up by the stairway to the second level.

Gross floor area for the entire sample is determined by summing the individual estimates of floor space for each of the selected dwellings. Gross floor area/person is determined for the sample by considering the total number of persons residing in the selected dwellings in relation to the gross floor area. The following table indicates the gross floor area/person ratios for the sample of 80 owner-occupied, grade-related, single-detached dwellings for pre-Hemlo subdivisions, Hemlo (Penn Lake Flats) subdivisions and all subdivisions.

Table 5.1.C Gross Area/Person Ratios in Marathon Subdivisions

	Pre-Hemlo Subdivisions	Penn Lake Flats Subdivisions	All Subdivisions
Number of dwellings	56	24	80
Number of occupants	175	86	261
Total floor area (sq. ft.)	59,163	28,728	87,891
Gross floor area/ person ratio	338	334	337
Surplus gross gloor area (sq. ft.)	15,413	7,228	22,641

A substantial volume of floor area in excess of that which is required to provide 250 square feet/person exists in aggregate form for the 80 owner-occupied dwellings surveyed. Over 22,500 square feet of floor space is potentially available for additional residents. On the basis of 250 square feet/person, this surplus, if optimally arranged, provides living space for approximately 90 additional residents.

When we extrapolate from our sample to the total of owner-occupied, grade-related, single-detached dwellings in Marathon, we estimate that a total of approximately 251,000 square feet of floor space exist surplus to the minimum floor area necessary to satisfy minimum floor area/person requirements. Optimally arranged, this surpus floor area would provide sufficient living space for approximately 1000 persons.

However, surplus floor area is not likely to be optimally arranged so as to allow perfect and complete utilization of the total estimated surplus floor area on the basis of 250 square feet per additional occupant. Rather, it is likely to be distributed between dwellings such that not all dwellings with a surplus will have as much as 250 square feet of surplus. Therefore, what surplus these dwellings do have will not add to the total surplus floor area in Marathon with real potential for intensification. Similarily, some dwellings are likely to have a surplus floor area of over 250 square feet but less than 500 square feet. In this case, any surplus over 250 square feet will not add to the total surplus floor area in Marathon with real potential for intensification inasmuch as it will be insufficient to support a second additional occupant in the dwelling.

In order to achieve a more realistic picture of the physical potential of the gross surplus floor area estimated to exist in Marathon, it is essential to consider on a dwelling by dwelling basis the volume of floor area surplus to the minimum needs of all occupants in each dwelling. This will allow a dwelling by dwelling estimate of the actual number of additional occupants that can potentially be accommodated in each dwelling and therefore, by extrapolation, in all dwellings.

The following table indicates the number of additonal occupants that can be potentially accommodated by existing above-grade housing stock surveyed in Marathon. Data regarding numbers of occupants are derived from the sample of 80 owner-occupied, grade-related, single-detached dwellings. Details on volume of floor area for each dwelling are derived from plot plans. Estimates are calculated on the basis of the 250 square feet of floor area/person minimum requirment. The findings are reported separately for the pre-Hemlo subdivisions, the Hemlo (Penn Lake Flats) subdivisions, and for all subdivisions.

Table 5.1.D Real Potential Space for Additional Occupants in Marathon

	Pre-Hemlo Subdivisions	Hemlo Subdivisions	All Subdivisions
Number of dwellings	56	24	80
Number of dwellings that can potentially accommodate at least one additional occupant	29	9	38
Number of ccupants presently residing in all dwellings	175	86	261
Number of additional pccupants potentially accommodated	50	18	68

Approximately 50% of all dwellings surveyed have the physical potential of accommodating at least one additional occupant according to the 250 square feet/person minimum. This physical potential has been calculated on the basis of above grade living space only. Pre-Hemlo housing stock demonstrates a greater physical potential (52% of dwellings are physically capable of accommodating at least one additional occupant) than Hemlo housing stock (38%).

The number of additional occupants that can potentially be accommodated by all dwellings surveyed is 68. This represents a 26% increase in the present occupancy rate. Again, pre-Hemlo housing offers the greater physical potential for increased occupancy compared to Hemlo housing (29% and 21% respectively). When extrapolated to the total number of single-detached dwellings in Marathon, we estimate that the existing Marathon housing stock of grade-related, single-detached dwellings has the physical potential above grade to accommodate approximately 750 additional occupants. Pre-Hemlo housing stock has the physical potential to accommodate approximately 500 additional occupants while existing Hemlo (Penn Lake Flats) housing stock has the physical potential to accommodate approximately 250 additional occupants.

It has been shown, therefore, that when the intra-dwelling pattern of distribution of gross surplus floor area/person in Marathon is considered, physical potential for intensification is somewhat reduced (from approximately 1000 additional occupants for all above-grade, single-detached dwellings to approximately 750 additional occupants). However, even after the gross surplus floor area/person is adjusted to reflect intra-dwelling distribution, it is evident that a substantial physical potential exists in Marathon's single-detached housing stock for increasing present occupancy rate.

Furthermore, this potential increase is physically possible by means of Model 1. Intensification through Model 1 requires minimal (if any) structural renovations. As a result, additional accomodation can be placed on the rental market quickly to accommodate a rapid rise in population characteristic of the boom cycle of expanding resource communities. Conversely, this form of accommodation can be withdrawn quickly from the rental market when necessary with little homeowner concern regarding pay-back on costly renovations consistent with other models of intensification.

Model 1 lends itself best to accommodating single persons. Because of this, Model 1 represents a relatively minor housing alternative for expanding population of a permanent nature. While Model 1 may well suit the numbers of transient workers which characterize rapidly expanding resource communities (especially in the early construction period), permanent housing is not usually created to meet this demand. Transient workers are usually accommodated in mobile units or company dormitories which are often taken out of service shortly after the initial burst of construction activity has waned. Permanent population, characterized by married households with children, replace the transient population and impose housing demands that by and large cannot be satisfied by types of accommodation such as Model 1. So while Model 1 demonstrates substantial physical potential in Marathon, it is unlikely that it poses as a significant alternative to other forms of housing. Assuming that this same physical potential existed prior to the development of Penn Lake Flats, it is also unlikely that Model 1 posed as a significant alternative to the family-style housing that makes up most of this new subdivision.

The Hemlo housing development for which the substantial physical potential of Model 1 represents a possible, partial alternative is the apartment complexes constructed by Lac Minerals Corporation and Teck-Corona Corporation. A number of these new units are one bedroom and accommodate childless, single tenants. In a following section on Tenant Demand in Marathon (5.3), we examine the housing preferences of the potential demand group for Model 1. Presently, however, we turn our attention to the physical potential of Model 2 in Marathon.

5.1.4 Physical Potential of Model 2

Residential intensification through the application of Model 2 is represented by two potential alternatives in Marathon: the conversion of two storey, single-family dwellings into two unit, multiple-family dwellings; and the conversion of unfinished basements into self-contained apartments. The first alternative is limited to Subdivision One whereas the second alternative is limited to Subdivisions two and three.

Subdivision One contains 219 two storey dwellings. There is some indication that conversion of these dwellings into two unit apartment dwellings may only increase the actual number of self-contained dwellings in Marathon without appreciably increasing the number of occupants who could reside in them. That is, even though a two storey structure is converted into two independant units (one unit per floor), it may not be physically capable of housing any more people than it does at present. In fact, it may be rendered capable of housing fewer people.

The principle indicator of this likelihood is our estimate of gross floor area/person. Conversions, and the tendency of such renovation to decrease overall living space through the construction of shared entrances, hallways, etc., would serve to decrease gross floor area/person ratios, thereby making intensification even less feasible.

From our survey of Subdivision One homeowners it has been determined that the average number of residents per dwellings is 2.9. From our housing inventory it has been determined that the average floor area of Subdivision One two storey dwellings is 1034 square feet. Conversion/renovations loss of approximately 72 square feet (7%) reduces average floor area to about 962 square feet. Based on a minimum floor area/person ratio of 250, the average two storey dwelling of 1034 square feet has the physical potential of accommodating up to four occupants. Converted into two units of 481 square feet each, however, this average dwelling now is capable of accommodating only two occupants while maintaining the 250 square feet/person minimum requirement. The average converted dwelling would therefore be physically incapable of accommodating the current average number of people per dwelling (2.9).

From our sample of 28 Subdivision One owner-occupied, single-detached dwellings, 24 are of two storey design. These 24 dwellings presently accommodate 67 occupants. When we consider present number of occupants and the reductions and distribution of floor area resulting from the conversion of each dwelling into two above grade self-contained units, we estimate that the 24 two storey dwellings would be physically capable of accommodating 66 occupants-one less than the 24 dwellings are presently accommodating in unconverted form!

Clearly, then, Subdivision One (Marathon's oldest subdivision of 258 single-detached dwellings) has virtually no above-grade physical potential for Model 2. Given that dwellings in Subdivision One have basements that are largely impractical for conversion purposes (cramped with low ceilings and minimal window area), there is also virtually no physical potential for below-grade forms of Model 2.

The second potential alternative in Marathon for the application of Model 2 is the conversion of unfinished basements into self-contained apartments. As has already been established, Subdivision One has no potential in this area. Subdivision Two and the new Hemlo housing development (Penn Lake Flats) represent substantial potential for this type of intensification, however. Earlier it was noted that approximately 190 unfinished basements presently exist in Subdivision Two and approximately 251 unfinished basements exist in Subdivision Three. If all of these basements were to be converted into self-contained apartments, the Marathon rental market would be enhanced by the addition of approximately 440 new dwelling units.

An estimate of the approximate number of occupants potentially accommodated by 440 new basement apartments can be determined on the basis of existing basement floor area for the relevant dwellings. Basement floor area in Subdivision Two dwellings average 1085 square feet (calculated from plot plans for our sample of Subdivision Two dwellings). After deducting 25% for area taken up by heating and plumbing appliances, laundry facilities, stairways and a hallway, the average Subdivision Two basement provides approximately 815 square feet of floor area for conversion purposes. On the basis of 250 square feet/person, this amount of floor area would accommodate a maximum of three persons (gross floor area/person ratio of 283). The maximum physical potential of Subdivision Two for Model 2 (below grade) allows potential accommodation for a maximum of approximately 570 persons (based on average basement floor area of surveyed dwellings).

The average basement floor area for unfinished basements in Subdivision Three is 1257 square feet (calculated from plot plans for our sample of Subdivision Three dwellings). After deducting 25% (see above) and a further 10% to account for the irregular nature of many Subdivision Three foundation plans, the average Subdivision Three basement provides approximately 810 square feet of floor area for conversion purposes. This amount of floor area could potentially accommodate a maximum of three persons based on 250 square feet/person (gross floor area/person ratio of 270). The maximum physical potential of Subdivision Three for Model 2 (below grade) allows for potential accommodation for a maximum of approximately 750 additional occupants.

The maximum number of additional occupants that can be potentially accommodated by new Model 2 (below grade) conversions in Subdivision Two and Three is approximately 1320.

5.1.5 Discussion

The preceding section reports on the examination of physical potential of existing Marathon housing stock for residential intensification by means of Model 1 through Model 5. The present housing inventory has been divided into categories of pre-Hemlo housing and Hemlo (Penn Lake

Flats) housing. Consideration has been given to Marathon's physical potential for present intensification as well as that which may have existed prior to the new Hemlo housing development.

In terms of present physical potential, Marathon's existing housing stock represents substantial opportunities for intensifying occupancy rate. The vast majority of these opportunities are consistent with conversion Models 1 and 2. Infill opportunities around multiple-family dwellings (Model 5) are virtually non-existent. Infill opportunities around single-family dwellings (Model 4) are limited by the lack of backlanes in residential areas with building lots of sufficient dimension to accommodate additional construction. Where backlanes do exist in Marathon, the building lots are generally of insufficient dimension to accommodate a sigificant amount of new construction. It is estimated that approximately 24-31 infill residential building lots of adequate dimension to accommodate average sized, single-detached dwellings presently exist for all Marathon. The physical potential of Model 3, in particular a horizontal addition of new living space, presents opportunities for the addition of approximately 35-45 one and two bedroom self-contained, grade-related units with backlane access.

The physical potential of Models 1 and 2 (below grade) combined for all residential areas in Marathon present opportunities for existing housing stock to accommodate a maximum of approximately 2000 additional occupants. This estimate has been calculated on the basis of a minimum of 250 square feet of floor space/person taking into consideration the present distribution of surplus floor area between dwellings. Approximately one-third of these additional occupants would be required to suit the circumstances consistent with Model 1 while the remaining two-thirds's could be households of no more than three persons and able to suit the circumstances consistent with Model 2 (below grade, one and two bedroom units).

The question as to what extent the physical potential of pre-Hemlo housing stock could have been employed as an alternative to the new Hemlo housing development cannot be answered precisely within the scope of the present study. However, the present study has generated indicators that would suggest, at least tentatively, that the pre-Hemlo housing stock did indeed have sufficient physical potential to substantially off-set the need for much of the new Hemlo housing and the attendant services.

By means of an examination of survey data from our sample of Penn Lake Flats homeowners, it is determined that 42% of households are made up of three or less occupants. If we extrapolate this percentage from our sample to the total population of owner-occupied households in Penn Lake Flats, we estimate that approximately 127 households out of 303 have three or less occupants. Strictly on the basis of physical potential, then, pre-Hemlo Model 2 conversions with the capacity for at least three occupants could have potentially substituted for approximately 126 Hemlo-based single-detached dwellings. This would have represented a 42% reduction in the total number of new single-detached dwellings that have been constructed in Penn Lake Flats.

Penn Lake Flats also includes 144 new apartment units within six buildings. From our survey of Marathon tenants (detailed analyses in Section 5.3) it is possible to determine an estimate of the number of tenant households in these new units which have three or less occupants and could therefore have been potential tenants for Model 2 conversions. Tenant households with only one occupant would have been potential tenants for Model 1 accommodations.

Of the 47 tenant households randomly selected for our survey and presently residing in the new Hemlo apartment buildings, 30 (75%) are made up of three or less occupants. Again, strictly on the basis of physical potential, pre-Hemlo Model 2 conversions with the capacity for at least three occupants could have potentially substituted for approximately 108 new Hemlo apartment units. This would have represented a 75% reduction in the total number of new Hemlo apartment units that have been constructed in Penn Lake Flats.

On the basis of raw physical potential, Marathon housing stock has considerable ability to intensify its present occupancy rate and accommodate significant numbers of new residents. There is tentative evidence to suggest that Marathon's pre-Hemlo housing stock had the physical potential to significantly off-set the need for much of the Hemlo housing development and to serve as a partial alternative for such development.

However, substantial levels of physical potential are not enough in and of themselves to establish the feasibility of residential intensification in any given community. Other factors will undoubtedly operate to militate against the full realization of the established physical potential of existing housing stock. One such factor is the attitudes of homeowners regarding conversion and the prospects of becoming landlords. It is to a consideration of these attitudes and their impact on potential residential intensification in Marathon that we now turn.

5.2 THE SUPPLY OF INTENSIFICATION-RELATED RENTAL ACCOMMODATION

The physical potential of any particular dwelling for accomodating additional occupants is merely an option that the dwelling owner may or may not choose to exercise. The potential for residential intensification depends largely upon the homeowner's willingness to rent out a room (rooms) and/or to convert his/her dwelling through structural renovation to include a self-contained apartment for the rental market. Conversion may be economically feasible, residential by-laws may be favourable, sufficient floor area may exist, but if the owner chooses not to rent out or convert, then residential intensification does not take place. Willingness on the part of the homeowner to become a landlord is critical to the supply process.

In the following section we examine the willingness of 80 randomly selected owner-occupants of grade-related, single-detached dwellings to rent out a room (rooms) (Model 1) and/or to undertake a physical/structural conversion of their dwellings in order to create self-contained apartments (Models 2 and 3). The analyses are organized according to the 3 distinct subdivisions identified in Section 5.1. By examining the data according to subdivision, we attempt to address the question as to the potential of pre-Hemlo housing stock for absorbing Marathon's "gold rush" population growth. Secondly, it allows us an independant consideration of each of the pre-Hemlo subdivisions and an opportunity to determine which subdivision possesses the greatest intensification potential.

A socio-economic description of the owner-occupants is provided by subdivision. It is our contention that an understanding of the socio-economic characteristics of owner-occupants will better prepare any program aimed at encouraging owner-occupants to convert their homes into multiple-family dwellings. The information could be particularly useful should owner unwillingness to convert turn out to be the main obstacle to residential intensification.

5.2.1 Subdivision One

Section 5.1 identifies Subdivision 1 as the oldest residential section in Marathon. It contains 47% of grade-related, single-detached pre-Hemlo dwellings. The potential of structural conversion consistent with Model 2 is largely limited to the conversion of present two storey single family dwellings into multiple family dwellings with two self-contained apartments above grade (one unit per floor). There exist in Subdivision 1 approximately 220-230 such two storey dwellings.

Section 5.1 has already suggested that present above-grade occupant density of pre-Hemlo housing is sufficiently high as to preclude significant intensification through Model 2 in Subdivision 1. Nevertheless, the following table indicates the socio-economic characteristics of a random sample of 28 owner-occupants from Subdivision 1 and the extent to which they are willing to convert their dwellings to include a self-contained apartment or to rent out to roomers.

Table 5.2.A. Socio-Economic Characteristics and Willingness to Convert for Owner-Occupants of Grade-Related, Single-Detached Dwellings in Subdivision 1 and Marathon

Characteristics	Subdivision One	Marathon
Percentage of total sample	35 %	100 %
Average length of residency (years)	16	9
Average age of household head	49	43
Median household income	$30-45,000	$30-45,000
Average household size	2.9	3.3
Mortgage on house (yes)	46 %	63 %
Would consider renting out room		
- yes	4 %	8 %
- no	89 %	75 %
- maybe/don't know	7 %	17 %
Would consider converting space into apartment - yes	4 %	4 %
- no	96 %	93 %
-maybe/don't know	0 %	3 %
		(N=28)

5.2.2 Subdivision Two

Section 5.1 describes Subdivision 2 as the second oldest residential section in Marathon with the age of houses ranging from 20-30 years with the majority being around 20-25 years of age. The overwhelming majority of these dwellings are of a bungalow design with full basement. Section 5.1 has concluded that little intensification potential exists above grade for these dwellings collectively. Below grade, however, there exists considerable physical potential for Model 2. Section 5.1 has indicated that approximately 190 unfinished basements with physical characteristics favourable to conversion presently exist in Subdivision 2. Table 5.2.B provides the household characteristics and the degree of willingness to convert for Subdivision 2.

Table 5.2.B Socio-Economic Characteristics and Willingness to Convert for Owner-Occupants of Grade-Related, Single-Detached Dwellings in Subdivision 2 and Marathon

Characteristics	Subdivision Two	Marathon
Percentage of total sample	35 %	100 %
Average length of residency (years)	10	9
Average age of household head	47	43
Median household income	$30-45,000	$30-45,000
Average household size	3.3	3.3
Mortgage on house - yes	54 %	63 %
Would consider renting out room		
- yes	7 %	8 %
- no	86 %	75 %
-maybe/don't know	7 %	17 %
Would consider converting space into apartments - yes	4 %	4 %
- no	92 %	93 %
- maybe/don't know	4 %	3 %
		(N=28)

While the physical potential for substantial residential intensification appears to exist in Subdivision 2, it would appear that the attitudes of the homeowners militate against such development. Table 5.2.B indicates that 86% of all owner-occupants surveyed are opposed to renting out to roomers while 92% are opposed to structural conversion and the creation of self-contained apartments in their houses. If we extrapolate the percentage of the sample that would consider converting space into an apartment (4%) to the 190 potential basement suites estimated to exist, we would estimate that physical potential coupled with willingness to convert could generate about seven self-contained basement apartments.

Clearly, without wishing to place too much confidence on our extrapolation dueto the small number of cases, residential intensification in Subdivision 2 through the application of Model 2 is extremely limited. It would appear that a lack of willingness to convert is the major obstacle. The reasons for this general unwillingness is examined in detail in a following section.

5.2.3 Subdivision Three (Penn Lake Flats)

The residential intensification potential of Penn Lake Flats is of only minor concern for the purposes of the present study. Our central motivation is to assess the potential of Marathon's pre-Hemlo housing stock for accomodating the recent population expansion and, in effect, its potential for having served as a viable alternative to the construction of new housing stock. Given that Penn Lake Flats has been projected to be more than adequate to meet future housing needs (Stafford et. al., 1983:13), it is of little consequence here to determine in detail its intensification potential. It is unlikely even to be called upon to serve as a base for intensification.

Nevertheless, Table 5.2.C details the socio-economic characteristics of a random sample of 24 Penn Lake Flats owner-occupants and their willingness to rent out and convert.

Table 5.2.C Socio-Economic Characteristics and Willingness to Convert for Owner-Occupants of Grade-Related, Single-Detached Dwellings in Penn Lake Flats and Marathon

Characteristics	Penn Lake Flats	Marathon
Percentage of total sample	30 %	100 %
Average length of residency	1	9
Average age of household head	36	43
Median household income	$30-45,000	$30-45,000
Average household size	3.5	3.3
Mortgage on house (yes)	92 %	63 %
Would consider renting out room		
- yes	13 %	8 %
- no	58 %	75 %
-maybe/don't know	29 %	17 %
Would consider converting space into apartment - yes	8 %	4 %
- no	88 %	93 %
- maybe/don't know	4 %	3 %
		(N=24)

5.2.4 Motivations For Renting Room Or Converting

According to sample findings, a small minority of Marathon homeowners would consider renting out to roomers and/or converting their dwellings to provide a self-contained apartment. Their responses to this question were as follows:

Yes	6 %
No	84 %
Maybe/Don't know	10 %

The three most frequently reported motivations for renting a room and/or converting their dwellings can be categorized as follows:

Additional income	60 %
For a friend	30 %
Don't know	10 %
	100 %
	(N=10)

The reasons cited by those homeowners unwilling to rent out to roomers or to convert can be categorized as follows:

Lack of privacy	40 %
Not enough room	30 %
Too much trouble	6 %
Against By-laws	4 %
Too many renovations	3 %
Misc.	15 %
Don't know	2 %
	100 %
	(N=134)

Due to the fact that such a small percentage of Marathon homeowners report being willing to rent out a room or to undertake conversion (6% for all subdivisions; 4.5% for pre-Hemlo subdivisions) it would be invalid to infer the characteristics of such a small number of cases to the general population of owner-occupants who are willing to rent out and/or convert. Further description of the socio-economic, household and attitudinal characteristics of this group is therefore unwarranted.

In lieu of further analyses of the tiny potential landlord group, we shall turn our attention to that group of owner-occupants who report that they might be willing to rent a room or convert if certain conditions and circumstances present themselves. This group represents 10% of all surveyed owner-occupants. If they could be persuaded to join those owner-occupants who report being willing to become landlords, it would increase the size of this latter group from 6% of all owner-occupants to 16%. It may, therefore, be useful to understand their motivations and expectations.

Respondent who report that they might be willing to rent to a roomer and/or convert their current dwellings to include a self-contained apartment if certain conditions are present can be categorized as follows:

If tenant is good	31 %
If need money	25 %
If enough space	13 %
If on short term basis	13 %
Don't know	18 %
	100 % (N=15)

5.2.5 Discussion

Approximately 8% of all owner-occupants surveyed report a willingness to rent out a room in their house to an unrelated roomer. Based on the estimate in Section 5.1 regarding the total number of additional occupants that could potentially be physically accomodated in Marathon through Model 1, this 8% rate of willingness represents a maximum of approximately 60 additional occupants.

However, this assumes that every owner-occupant who is willing to rent out a room is also one whose dwelling has sufficient above-grade surplus floor area (at least 250 square feet) to accomodate an additional occupant. When we look closely at those owner-occupants who report being willing to rent out a room, we find that exactly half do not have a gross floor area/person ratio sufficient to accommodate an additional occupant. If we base our extrapolation on this finding, the observed 8% rate of willingness may potentially generate only 30 additional occupancies.

Of those owner-occupants reporting a willingness to rent a room, 50% lived in dwellings of insufficient gross floor area/person ratios to accomodate an additional occupant. All of these owner-occupants lived in pre-Hemlo dwellings. This finding generalized to the total group of pre-Hemlo owner-occupants suggests that the likelihood of significant residential intensification through Model 1 in pre-Hemlo subdivisions is extremely limited.

Approximately 4% of all owner-occupants surveyed reported a willingness to convert their present dwelling to include a self-contained apartment. Based on our previous estimate in Section 5.1 of the physical potential of a total of approximately 441 self-contained apartments in all subdivisions, a willingness rate of

4% may potentially deliver 17 additional apartment units to the rental market.

Of course, it is advised that the above estimates be interpreted cautiously given the small number of cases. This caution not withstanding, it is clear that the overwhelming majority of owner-occupants in our sample would not consider either renting a room or creating a self-contained unit in their homes. In fact, the unwillingness is so pervasive as to conclude that it all but completely eliminates any opportunities for residential intensification offered by the substantial physical potential of the existing housing stock. If we infer this degree of unwillingness back to the time when the Hemlo goldfield expansion first began to exert pressures on Marathon's housing market, then we might conclude that Marathon's pre-Hemlo housing situation was an inadequate base for significant residential intensification. We might also conclude that the Hemlo housing development, Penn Lake Flats, was the most effective means of accomodating the rapid rise in population over the past two or three years.

State policy and initiatives directed at encouraging homeowners to play a more significant role in the rental market must grapple with the homeowners' fundamental reluctance to share their own personal dwellings. Homeowners are mostly concerned that renting out will impinge upon the privacy of their families. There is little doubt that taking on a roomer would indeed have considerable impact on the privacy of the immediate family. This being unavoidable, perhaps the emphasis should be placed on the encouragement of homeowners towards creating self-contained apartments. Government sources could offer educational programs on how to design a conversion so as to maximize privacy; e.g., sound-proofing, separate entry systems, separate backyard space through use of fencing, vegetation and landscape design, etc. Other incentives such as low interest and/or forgivable loans, tax deductions, and free design and construction consultations are likely to motivate a certain percentage of homeowners to convert, especially those who are undecided.

5.3 TENANT DEMAND

The purpose of the following section is to examine the nature and extent of the potential demand for rental units in Marathon. Particular attention is directed toward the potential demand for units brought onto the market through the practice of renting rooms (Model 1) and conversion (Models 2 and 3).

Data were collected for a random sample of 49 renters by means of telephone interview. Respondents were screened to exclude either those who pay rent to the government or other non-profit organizations, or those who receive government assistance in meeting rental payments.

5.3.1 Renter Types

Marathon renters are classified into two main categories on the basis of their rental unit preferences. High preference renters (47%) are defined as current renters who report a high preference for renting a living space in a house. Low preference renters (53%) are defined as current renters who report a low preference for renting living space in a house. The following analyses draw comparisons between these two types of renters according to household characteristics, present unit characteristics and attitudes. The high preference renters (potential demand group) are then examined according to their preferences for converted units and home purchases.

Table 5.3.A Household Characteristics of Renters by Preference for Rental of Living Space in a House

Household Characteristics	High Preference	Low Preference
Length of residency	8 months	9 months
Average household size	2.9 persons	2.7 persons
Average age of household head	30 years	38 years
Marital status - single	18 %	13 %
- married	64 %	54 %
- other	18 %	33 %
Median household income	$30-45,000	$30-45,000
More than 1 income	23 %	28 %
Dependant children at home	64 %	42 %
	(N=23)	(N=26)

While the differences between the 2 types of renters are not dramatic, there is some indication that the high preference group is generally younger and more likely to have dependent children living at home than the low preference group. Collectively, renters are most likely to be living with at least 1 other person. Fifty percent of all renter households have dependent children at home. The relatively short length of residency for both groups (8-9 months median) reflects the fact that a large percentage of the sample was derived from the six new Hemlo-related apartment complexes which opened for occupancy about one year before the survey was completed.

Table 5.3.B. Characteristics of Recommendations of Renters by Preference for Rental of Living space in a House

Present Unit Characteristics	High Preference	Low Preference
Building type		
- apartment building	91 %	92 %
- house	9 %	8 %
Number of bedrooms		
- bachelor	4 %	4 %
- 1 bedroom	0 %	12 %
- 2 bedrooms	83 %	73 %
- 3+ bedrooms	13 %	12 %
Average monthly rent	$429	$380
	(N=23)	(N=26)

The majority of renters reside in two bedroom apartments in apartment buildings. Approximately 10% of total renters reside in houses. Those renters with a high preference for living in an apartment in a house are most likely to currently rent a two bedroom apartment and pay rent at a level approximately 13% higher than current low preference renters. The fact that high preference renters tend to reside in larger apartments may reflect the fact that these renters are more likely to have dependent children living at home.

Table 5.3.C Attitudes of Renters by Preference for Rental of Living space in a House

Attitudes	High Preference	Low Preference
Percentage of total sample	47 %	53 %
Rented in house before	43 %	37 %
Advantages of house	100 %	100 %
- more home-like	4 %	0 %
- more privacy	65 %	50 %
- access to yard	26 %	38 %
- more sociable	5 %	12 %
Disadvantages of house	100 %	100 %
- less privacy	29 %	63 %
- less maintenance	14 %	0 %
- landlord problems	14 %	12 %
- more noise	14 %	25 %
- more expensive	29 %	0 %
	(N=23)	(N=26)

Considerably more high preference renters perceive at least one advantage to living in an apartment in a house than low preference renters (87% vs 27% respectively). Advantages of an apartment in a house most frequently mentioned by high preference renters are more privacy and access to a yard.

Conversely, more low preference renters perceive at least one disadvantage to living in an apartment in a house than high preference renters (65% vs 30% respectively). Disadvantages most frequently mentioned by low preference renters are less privacy, more noise and landlord problems.

Table 5.3.D Satisfaction with Renting by Preference for Rental of Living Space in a House

Satisfaction With Renting	High Preference	Low Preference
Pleased about renting and will continue to rent	13 %	36 %
Unhappy about renting and will buy within 3 years	65 %	56 %
Unhappy about renting, but will continue to rent	22 %	8 %
	(N=23)	(N=26)

High preference renters are generally dissatisfied with renting at present (87%). This is not surprising considering that most high preference renters (91%) are currently residing in apartment buildings even though these renters have expressed a desire to live in houses. Almost two-thirds of high preference renters express the intention of purchasing a house within three years.

When high preference renters were asked why they were dissatisfied with their present living accomodations, the most frequently mentioned reason was that they were "not good for children" (38%). When later asked if their present unit had adequate space, 57% of high preference renters responded in the negative. Fifteen percent of renters feel that their rental payments are more than they can afford while 22% express a desire to live in another part of town.

Low preference renters also express a high degree of dissatisfaction with their present rental units (64%). Over one half of all low preference renters express a desire to purchase a house within three years. When asked why they were dissatisfied with their present living accomodations, 31% reported too little space, 23% said the rent was too high, and 23% expressed a desire to reside in another part of town.

High preference renters (those who express a relatively strong preference for living in an apartment or a room in a house as opposed to a conventional apartment building) can be seen to represent the demand group for the rental units brought onto the housing market through intensification activities. Almost two-thirds of this group are married with at least one dependent child. A substantial majority of this group is dissatisfied with their present accomodation. Over half report that their dissatisfaction is due to inadequate living space. Almost two-thirds mention "more privacy" as a chief advantage to living in a house. Almost two-thirds indicate an intention to purchase their own home within a few years.

These general household characteristics, attitudes and expectations of the demand group suggest a number of implications for the potential of residential intensification. Firstly, the greatest potential demand for rental units would appear to be for roomy, self-contained apartments with at least two bedrooms in either owner-occupied houses or houses which have been totally converted into apartments. Given that this latter type does not exist in Marathon to any great extent, the greatest potential lies in the owner-occupied dwelling with self-contained apartment (Model 2 and Model 3). In order to appeal to a sizeable number of the demand group, rental units should provide access to a yard, maintain high levels of privacy and ensure a minimal noise level.

Additional concerns of the potential demand group are detailed in table 5.3.E.

Table 5.3.E. Very Important Factors Associated with Renting an Apartment in a House

Factors	Judged Very Important By:
Private bath and kitchen	100 %
Monthly rent	52 %
Location	13 %
Number of bedrooms	83 %
Availability of parking	74 %
Floor of house	43 %
Private, separate entry	65 %
Access to backyard	65 %
Absentee landlord	30 %
	(N=23)

The potential demand group are least concerned with where the apartment is located within Marathon and whether or not the landlord lives in the same house. A relatively strong concern over number of bedrooms, private entry and access to backyard reaffirms our earlier findings that the demand group generally desires apartments with generous space, privacy and a backyard. The availability of parking is judged as being very important to three-quarters of the demand group while half the group expressed a concern over monthly rental rates.

The potential demand group for Model 1 (a room within a house) is considerably smaller than that for Models 2 and 3. Approximately one-fifth of the demand group are single, and therefore, in a position to potentially rent a single room. When asked for their first choice regarding type of accomodation in a house, only one respondent indicated a desire to share an entire house with others (share kitchen, bathroom and living areas).

When the demand group for all types of house-related rental accomodations were asked whether renting just a room had any advantages, 78% replied in the negative. Of these, 38% were concerned with a perceived lack of privacy and 31% felt that renting rooms and sharing facilities with unrelated persons was "no good for family".

A large percentage of the rental demand group (65%) express an unhappiness with renting and expect to purchase a house within three years. Generally, these renters want to live in the suburbs in new houses. A large percentage of the group is undecided, however.

Table 5.3.F Home Purchase Preference of Rental Demand Group

Locational Preference	
- suburbs	65 %
- city	4 %
- don't know	31 %
Age Preference	
- new	43 %
- used	9 %
- don't know	48 %
	(N=23)

When a renter purchases a house, he/she immediately becomes a potential landlord. In order to to afford the purchase of a house, a new owner may decide to rent out in order to share the payments. When both high preference and low preference renters who expressed the intention of purchasing a house in three years were asked whether they would be able to afford it without renting out, 86% replied affirmatively and 11% didn't know. Only one respondent felt that he couldn't afford to purchase a house and he was not willing to rent out in order to do so. Of those who would buy a house, 16% would consider renting out a room while 20% would consider creating a self-contained apartment.

5.3.2 Potential Market Demands

Approximately 50% of all renters surveyed express a preference for renting living space in a house rather than in a conventional apartment building. The potential of this demand group is significant given that about 90% are presently residing in apartment buildings and over 85% are unhappy in doing so.

However, this relatively high rental demand potential for house-related accomodation could very well be interpreted as a high demand for ownership of single-detached dwellings. Two-thirds of the potential demand group express an intention of purchasing houses in the near future in order, in part, to acquire more living space, more privacy, and a yard.

The typical household in the potential demand group is characterized by a household head in his/her early thirties, married with one to two dependant children, a median income range of $30-45,000 (typical of Marathon in general), and a length of residency of eight months in a two bedroom unit in a conventional apartment building.

5.3.3 Preferred Unit Characteristics

Only a small proportion of the potential demand group would consider renting a room in a house and sharing facilities with others. Most would prefer renting a self-contained apartment in either an owner-occupied dwelling or one which has been totally converted into apartments. Clearly, what is most important to these renters is the presence of personal kitchen and bathroom facilities. An adequate number of bedrooms, the availability of parking, the existence of a private entrance, access to a backyard, and reasonable rent are all characteristics judged to be of critical importance by over 50% of the potential demand group.

5.3.4 Rental Unit Supply Potential

A large percentage of both high and low preference renters express the intention of buying a house in the near future. Renters who do eventually buy houses, regardless of the preference type herein defined, become potential landlords and potential suppliers of rental accomodation. The vast majority of renters do not feel at this time that their ability to afford a house is contingent upon renting out a room or apartment. However, when asked if they would consider becoming landlords once they had purchased a house, 20% indicated that they would consider creating and renting out a self-contained apartment and 16% indicated that they would consider renting out a room. This degree of willingness to rent out/or convert and rent out is relatively high compared to the degree of willingness reported by Marathon homeowners (4% for self-contained apartments; 8% for renting out rooms) in Section 5.2.

5.3.5 Discussion

If residential intensification in Marathon is to effectively supply the market created by the potential demand group identified and examined in this section, it must proceed according to several specific dictates. If it fails to do so, the potential rental demand herein documented could readily manifest itself in a variety of house buying behaviours. The probability of this happening is supported by findings that a healthy majority of the potential demand group hope to change their present and unsatisfactory rental situation to one of home ownership within the next few years. If suitable rental accommodation consistent with the expectations of the potential demand group is provided through intensification activities, then perhaps an increasing demand for new housing stock could be curtailed.

The greatest demand in house-related accomodation is for self-contained units which contain at least two bedrooms and which maximize privacy, minimize noise and provide convenient parking, entry and yard space. Rental payments should ideally be around $400-450 per month including utilities. Every attempt to create the rental unit in the image of a conventional, single-detached or semi-detached dwelling will increase the appeal of the unit in the present demand context.

5.4 NEIGHBOURHOOD RESISTANCE TO RESIDENTIAL INTENSIFICATION

Understanding the attitudes of current residents towards the intensification of housing stock in their immediate neighbourhood is important to the overall understanding of the feasibility of such development. Should developments take place in a neighbourhood for which the residents are opposed, a variety of responses may arise which could potentially upset the valued stability of the neighbourhood (eg. rapid exodus of owner-occupants and an increase in absentee landlordism). In addition, residential intensification is often limited by municipal by-law restrictions. Marathon is no exception to this rule (see Section 5.6 below). Normally amendments to existing residential by-laws require the approval of the general public directly concerned. It is, therefore, useful to understand the nature and extent of public opposition to residential intensification prior to initiating a program of intensification incentives. Seen in this way, neighbourhood resistance poses as a critical potential impediment to expanding utilization of existing housing stock and services.

The following section examines the attitudes of Marathon residents towards residential intensification through Models 1 and 2. Models 3, 4, 5 are excluded from this analysis given that the physical potential for such conversions are somewhat limited in Marathon (Section 5.1).

Data were collected by means of a telephone survey of a random sample of 41 Marathon homeowners. In every case the interview was conducted with a household head. Efforts were made to maintain a 1:1 male/female ratio.

Table 5.4.A Household Characteristics of Respondents in Neighbourhood Resistance Survey

Average household size	3.5 persons
Children in household - yes	61 %
- no	39 %
Share present accommodation - yes	12 %
- no	88 %
Marital status - single	17 %
- married	66 %
- separated	7 %
- widowed	7 %
- other	2 %
Median household income	$30-34,999
Average age of respondent	42
Sex of respondent - male	54 %
- female	46 %
	(N=41)

Most households are middle-aged families with children. However, a surprising proportion of homeowners report being single (17%). Twelve percent of total households report sharing the house with unrelated persons. Two out of the total of five multiple-family dwellings are headed by single persons, and two by married couples.

Table 5.4.B Neighbourhood Characteristics

Average length of residence (years)	11
Degree of noticeable change in immediate neighbourhood since moving in:	
- great deal	0 %
- somewhat	5 %
- not at all	93 %
- don't know	2 %
Very Noticeable Changes:	
-new apartment buildings in area	0 %
-older houses being turned into apartments	0 %
-older houses being turned into rooming houses	0 %
-houses being renovated or fixed up	12 %
-houses becoming run down	2 %
-people of lower incomes moving in	0 %
-people of higher incomes moving in	0 %
-more childen in the area	12 %
-more elderly in the area	5 %
-more people of different ethnic backgrounds moving into the area	0 %
	(N=41)

The average length of residency of surveyed homeowners is eleven years. Most households,however, have lived at their present addresses for six years or less (based on median). During this time, the nature of Marathon's residential areas has remained largely unchanged. Nine out of ten respondents report noticing no significant changes. There is some perception that houses are being renovated and fixed up (12% of respondents), and that there are more children in the area (12% of respondents). When asked whether the changes that have taken place in their neighbourhood have been for the better or worse, 95% of respondents report no definite opinion.

Clearly, Marathon residents have observed what our housing stock inventory has shown (Section 5.1). Very little residential intensification has taken place in Marathon, especially, with regard to those types which are particularly visible (infill, horizontal and vertical additions). When asked specifically if they had noticed changes consistent with the definitions of Models 1 through 5, only 15% of respondents answered yes. Of these respondents, all mentioned noticing changes consistent with Model 2 only and report not noticing changes consistent with the other models.

5.4.1 Attitudes Towards Residential Intensification

Homeowners were questioned about their views and opinions on specific types of changes in their immediate neighbourhoods that would result in residential intensification of existing dwellings. In particular, homeowners were asked if they would object to changes consistent with Models 1 and 2 should they take place in their area. Their reactions were as follows:

Reaction	Model 1	Model 2
Object	0 %	10 %
Depends	0 %	0 %
No objection	93 %	90 %
Don't know	7 %	0 %

Nine out of ten Marathon homeowners give their unconditional approval for intensifying the existing housing stock in their immediate neighbourhoods through changes consistent with Models 1 and 2. What objections exist is in regard to Model 2 only. The specific objection to Model 2 mentioned most frequently are that parking problems could result from an increase in any given neighbourhood (50%). Also mentioned is that intensification might detract from the physical appearance of the area, property values might decline, and a situation of overcrowding could result.

When asked what the advantages of residential intensification through Model 2 might be, 54% of all respondents feel that there are no advantages while 24% feel that it would help alleviate the perceived housing shortage.

Table 5.4.C The Type of New Households Preferred By Neighbourhoods

Preferences In Households Moving In	First Choice
Young, married couples	29 %
Seniors	10 %
Young, single persons	5 %
No preference	56 %
	100 %
Young couples with children	49 %
Young couples without children	2 %
No preference	49 %
	100 %
Higher income household	2 %
Lower income household	0 %
Similar income household	51 %
No preference	47 %
	100 %
More owners	63 %
More renters	0 %
No preference	37 %
	100 % (N=41)

The most preferred household type is a young, married family with children who owns its house and has an annual income which approximates the average of the neighbourhood. Young, single renters with relatively low incomes are least preferred by homeowners as potential neighbours.

While the above analyses seem to suggest that Marathon homeowners are extremely amenable to residential intensification in their immediate neighbourhoods (approximately 90 % approve unconditionally) there is some indication that this finding should be questioned. Residential intensification is necessarily associated with renters, rental accomodation and everything that goes along. When asked what type of household represents their preferred household, not one respondent selected renter household. Although 37% of respondents had no preference, there still exists a significant contradiction between tenure expectations of Marathon homeowners and their intensification approval.

A possible explanation for these contradictory attitudes is that because Marathon has experienced so little residential intensification to date, current residents may not be aware of the potential pitfalls often associated with such change (declining property values, overcrowding, increased crime and vandalism, parking problems, increased noise levels, etc.). Views and opinions largely contingent upon personal experience are likely to reflect personal experience. Marathon homeowners may be generally unaware of the problems of intensification because, as a group, they have not experienced them. There is a possibility, therefore, that their general unconditional approval is motivated by positive factors (eg. a concern for the housing shortage in Marathon) rather than being eroded by a general apprehension towards potentially negative factors.

On the other hand, it could be that the contradiction between Marathon homeowners' tenure expectations for their neighbourhoods and their widespread intensification approval is more apparent than real. Residental intensification through Models 1 and 2 will necessarily increase the number of renter-households in a neighbourhood, but it will not, in-and-of-itself, decrease the number of owner-occupants. Therefore, Models 1 and 2 do not imply fundamental changes to the tenure structure of the neighbourhood and, therefore, households will remain predominantly under the direct management of the homeowners, even though the absolute number of renter households will increase. It is possible that when asked what their household preferences are in relation to tenure, Marathon respondents interpret the question as referring to single-family dwellings. An increase in renters may, therefore, be viewed by the respondents as an increase in absentee landlordism along with the potentially negative accompanying factors. If this is the case, then it should not necessarily be surprising that the respondents overwhelmingly approve of Models 1 and 2 while at the same time disapproving of an increase in renter households possibly perceived to be unsupervised by the owner-occupants.

Nevertheless, the data taken at face value strongly suggest that Marathon residents are generally in favour of residential intensification Models 1 and 2, even though a majority feel that no real advantages accrue to the participating neighbourhoods. This widespread approval could prove particularly useful in cases where municipal by-laws have to be amended to provide the necessary legal grounding for conversion developments. It is to the nature of the existing residential by-laws in Marathon that we now turn.

5.5 THE ECONOMIC FACTORS OF INTENSIFICATION

The following section examines the economic feasiblity of intensification in Marathon. Would a homeowner be able to charge a roomer (Model 1) a monthly rent that represents the true costs associated with the roomer's use of the dwelling, or would these true costs be greater than existing market rental rates for such accommodation? Would a homeowner be able to attract a monthly rent for a self-contained apartment (Model 2) that would cover the total costs associated with its creation and operation or would the costs necessitate a break-even rent which was not competitive with existing market rates for comparable new accommodation? Assuming that a homeowner's primary motivation for renting out part of his/her house is financial, he or she is likely to proceed with intensification only if it is perceived that monthly rental income will at least cover the costs of conversion. In fact, it is not unreasonable to assume that a homeowner is not likely to undertake conversion and renting out unless it is perceived that he/she will actually return a profit on becoming a landlord. While it is true that some homeowners may rent out at rates that are below the true costs associated with the tenants share of the house (e.g. Model 1) in order to afford to buy or continue to own their own house, Marathon homeowners (according to survey data) express little difficulty in meeting mortgage payments while few Marathon tenants would consider renting out in order to be able to afford to purchase. It is felt, therefore, that Marathon homeowners are most likely to intensify their present dwellings only if it is financially rewarding at the bottom line.

The economic feasibility of Models 1 and 2 is determined through a comparison of break-even rents for the two models, and existing market rental rates are determined by calculating the amount of monthly rental income necessary to cover all costs associated with bringing the rental accommodation onto the market.

It is to be noted, of course, that the following estimates of costs are hypothetical and will certainly vary in reality. However, this method has been validated by the study that the present research attempts to replicate and has the confidence of the present authors. Nevertheless, it is intended more for illustrative purposes in recognition of the fact that, under different assumptions, the following estimates would be quite different. Caution in their application is advised.

The costs associated with intensification Models 1 and 2 are divided into three categories: Creation Costs; Financing Costs; and Operating Costs. The following details these costs:

Creation Costs

Creation costs associated with the three models of intensification are broken into three categories:

-Acquisition Costs are those which represent the total purchase price of acquiring the dwelling to be converted. For the purposes of this analysis, three hypothetical acquisition costs have been selected which reflect the general range of purchase prices for three bedroom single-detached, grade-related dwellings in Marathon.

-Construction/Alteration Costs include all costs related to materials and labour necessary to undergo conversion. In the case of Model 1, no construction/alteration costs are necessary. Model 2 construction/alteratin costs relate to basement conversions for 1200 square foot dwellings. All construction/ alteration costs have been obtained through quotations from a local contractor.

-Soft Costs include non-construction costs incurred in association with conversion; for example, building permit fees, legal charges, architectural fees, interest charges on working capital, etc. Soft costs have been set at 15% of alteration costs for Model 2.

Financing Costs

The investor's equity in the conversion is set at 25% of total creation costs. The remaining creation costs are financed at 10% with an interest only mortgage for the sake of convenient calculation.

Operating Costs

Operating costs are divided into four categories:

- Property Taxes are hypothetically set at 2% of creation costs. This is 1% higher than the study being replicated to reflect the high level of property taxes relative to residential market value (acquisition costs) in small, rural Northern Ontario communitities.
- Maintenance/Upkeep costs have been set at $0.25 per square foot for older dwellings and $0.10 per square foot for new construction.
- Insurance costs have been set at $0.50 per $100 of dwelling value. Dwelling value is equivalent to creation costs.
- Heating and Utilities costs assume the absence of separate metering in the case of Model 2 and are arbitrarily set at $2000 per year for Model 1 and $2500 for Model 2.

5.5.1 Model 1

The following analysis is based on a three bedroom, owner-occupied, single-detached dwelling in Marathon in which two bedrooms are used by members of the owner-household and one bedroom is rented out to an unrelated person. This person has full use of the house and all its facilities. According to the investor model, the tenant should be responsible for one-third of all costs inasmuch as he/she occupies one out of three bedrooms. If the tenant's monthly rental payments equal an amount less than this, he/she is, in effect, being subsidized by the owner household. If the tenant's monthly rental payments exceed an amount equivalent to one-third of all costs, then the owner-household is effecting a profit on the rental of the tenant's share of the house.

Table 5.5.A. details the costs associated with the three acquisition cost categories for Model 1:

Table 5.5.A Model 1 by Owner-Occupied, Single-Detached Dwelling With Three Bedrooms

CREATION COSTS			
1. Acquisition costs	$30,000	50,000	75,000
2. Alteration costs	--	--	--
3. Soft costs	--	--	--
Total creation costs	30,000	50,000	75,000
Equity Position (25% of creation costs)	7,500	12,500	18,750
Remaining costs to finance	22,500	37,500	56,250
FINANCING COSTS			
1. Return on equity (8%)	600	1,000	1,500
2. Remaining costs at 10%	2,250	3,750	5,625
Total financing costs	2,850	4,750	7,125
OPERATING COSTS			
1. Taxes	600	1,000	1,500
2. Insurance	150	250	375
3. Maintenance/upkeep	300	300	300
4. Heat and utilities	2,000	2,000	2,000
Total operating costs	3,050	3,550	4,175
TOTAL ANNUAL COSTS	5,900	8,300	11,300
TOTAL ANNUAL COSTS/ROOM	1,967	2,767	3,767
BREAK-EVEN MONTHLY RENTS/ROOM	164	231	314

The break-even monthly rent per room would be $164, $231, and $314 respectively for acquisition costs of $30,000, $50,000 and $75,000. In order, therefore, for the tenant in a three bedroom owner-occupied dwelling to pay for his/her equal share of the total costs of the dwelling, his/her monthly payments would have to be $164, $231, or $314, depending upon the purchase price of the house.

Currently in Marathon, the average monthly rent for single-member tenant households in bachelor units or one or two bedroom apartments is $335 (based on survey of 49 tenant households in Marathon). Because there are insignificant numbers of three bedroom dwellings with acquisition costs as low as $30,000, the bulk of the potential Model 1 forms of accommodation would be for dwellings with acquisition costs of $50,000 and $75,000 with break-even rents of $231 and $314 respectively.

A monthly rent of $314 for a single room in a three bedroom dwelling is clearly not competitive in Marathon. It is not economically feasible according to the foregoing assumptions to undertake Model 1 intensification in three bedroom dwellings with purchase prices of approximately $75,000 or greater. A monthly rental rate of $231 is reasonably competitive, however. At $231 per month, current single-member households would be paying an average approximately 30% less than they presently do. Some current tenants would be paying as much as 46% less.

Whether current single-member tenant households would be willing to give up the amenities provided by their present self-contained apartments (private kitchen, bathroom, etc) in favour of a single private room, shared household amenities and a reduced monthly rent, would depend on a number of factors: the characteristics of available Model 1 rooming houses versus their present accommodations; the supply of Model 1 rooming houses; their general preferences in regard to house-related versus conventional apartment building accommodation; etc. Regardless, however, of what current tenants may or may not decide to do, it is to be noted that the rents necessary for the economic feasiblity of Model 1 conversions in a significantly large number of three bedroom single-detached dwellings in Marathon are competetive relative to the present market rates for existing single-member household rental accommodation.

5.5.2 Model 2

The physical potential of the existing housing stock in Marathon affords considerable opportunities to create self-contained apartments in the below-grade living space of both pre-Hemlo and Hemlo dwellings. The following hypothetical example refers to the conversion of a 1200 square foot basement of which 900 square feet become available accommodation for additional occupants while the remaining 300 square feet are devoted to heating and laundry facilities, hallway and stairway. The apartment itself has a kitchen equipped with refrigerator and stove, an adjoining dining room, a living room, two bedrooms and a full bathroom. Separate entry is provided using a shared door at the rear of the dwelling. Additional sound proofing has been installed in the ceiling of the apartment to minimize intra-apartment noise levels.

Table 5.5.B details the costs associated with the three cost acquisition categories for Model 2:

Table 5.5.B Model 2 by Owner-Occupied, Single-Detached Dwelling With 1200 Square Feet of Below-Grade Floor Area

CREATION COSTS			
1. Acquisition costs	$30,000	50,000	75,000
2. Alteration costs	14,850	14,850	14,850
3. Soft costs at 15% of Alt.costs	2,228	2,228	2,228
Total creation costs	47,078	67,078	92,078
Equity position (25% of creation costs)	11,770	16,770	23,020
Remaining costs to finance	33,308	50,308	69,058
FINANCING COSTS			
1. Return on equity (8%)	942	1,342	1,842
2. Remaining costs at 10%	3,530	5,030	6,905
Total financing costs	4,472	6,372	8,747
OPERATING COSTS			
1. Taxes	942	1,341	1,841
2. Insurance	235	335	460
3. Maintenance/upkeep	300	300	300
4. Heat and utilities	2,500	2,500	2,500
Total operating costs	3,977	4,476	5,100
TOTAL ANNUAL COSTS	8,449	10,848	13,847
TOTAL ANNUAL COSTS FOR APT. AT 40% OF TOTAL ANNUAL COSTS	3,380	4,340	5,540
BREAK-EVEN MONTHLY RENT	282	362	462

The break-even monthly rent per self-contained apartment would be $282, $362, and $462 respectively for total creation costs of approximately $47,000, $67,000 and $92,000. This is based on a cost of approximately $17,000 (alteration and soft costs) for the construction of the basement apartment. If the homeowner was capable and willing to complete some or all of the work him/herself, the break-even rent would decrease according to his/her input.

There are very few, if any, $30,000 single-detached dwellings with 1200 square feet of below-grade living space in Marathon. Realistically, $50,000 for such a dwelling would be the very minimum in todays housing market with the average actually somewhat closer to $75,000. Therefore, based on the assumptions applied, the typical two bedroom, self-contained basement apartment within a single-detached dwelling would have to attract between approximately $375 and $475 per month including heat and utilities in order to be economically feasible.

From our survey of Marathon tenants it has been noted that new two bedroom apartments rent for approximately $450 per month. Economically, then, Model 2 forms of intensification consistent with the cost asssumption detailed above (or cost assumptions which lower the hypothetical break-even rents) are feasible and reasonably competitive in the current Marathon rental market.

5.6 MUNICIPAL RESIDENTIAL BYLAWS

The zoning by-law of Marathon is quite rigid and inflexible in terms of the potential for intensification. To provide for intensification-related opportunities major changes would have to be made to the by-law. These include changes in definitions to broaden their scope; less restrictive lot coverage and frontage requirements; and a broadening in the uses allowed in the major residential zone.

5.6.1 Model 1

In Marathon conversion Model 1 is precluded in the two largest residential zones, "A" and "B1" by the restrictive definition of "family" under Zoning By-law 332. These two zones comprise the majority of the area allocated for residential zoning.

> Sect. 2.12 FAMILY shall mean one or two or more persons living as a single and non-profit housekeeping unit in a dwelling.

According to Section 4.1, the first zone "A" which is described as a "private, residential zone" includes uses of "only one-family dwelling unit". Therefore, based on the definition of "family" as a "non-profit housing unit", Model 1 would not be allowable in this zone.

According to Section 5.1, two-family dwelling units are allowed in zone "B1" (described as "general" residential) but restrictions remain again due to the definition of "family". The definition of family as a "single and non-profit housekeeping unit in a dwelling" would imply that the two-family dwelling unit would refer to two separate family dwelling units and not a situation in which one family shares facilities with another and pays for the use of these facilities as would exist under Model 1.

5.6.2 Models 2 and 3

Intensification Models 2 and 3 are precluded in the private residential zone "A" due to its restriction on use to "one-family dwelling units" (Section 4.1) In general residential zone "B1", according to Section 5.1, "two-family dwelling units" are allowed as well as one-family dwelling units. Unfortunately this use is precluded by restrictions on frontage required.

> Sect. 5.3 b) TWO-FAMILY DWELLING UNITS-shall require a lot with a minimum frontage of seventy (70) feet and a minimum area of seven thousand, five hundred (7,500) square feet.

This section precludes Model 2 and 3 because all lots in this zone are less than 70' wide.

Conversion according to Model 3 is also restricted by the maximum lot coverage requirements.

> Sect. 5.6 LOT COVERAGE-No uses in this zone including private garages and accessory buildings shall occupy more than thirty-five (35%) percent of the lot.

5.6.3 Model 4

In its general section, Marathon's by-law contains two sections which restrict the use of Model 4.

> Sect. 3.13 ONE MAIN BUILDING-Not more than one main building shall be erected on any one lot or parcel, in conformity with the provisions of this by-law.
>
> Sect. 3.5 LOT TO ABUT STREET-No building or structure may be erected upon the land, which does not abut a public street which has been opened by by-law and graded; or a public street for which a by-law has been passed and approved for the opening and grading...

In Marathon, there exists a series of backlane that could be used as access to new dwelling structures built at the back of lots. Section 3.13 precludes this model unless it could be established that a smaller structure built for residential purposes could be viewed as an "accessory" building and not a "main" building. Even with this possiblity in mind, Section 3.5 restricts conversion because a structure must "abut" a public street. These backlanes are not kept as "public streets". The loophole that exists in this section is that which states that "a public street for which a by-law has been passed and approved for the opening and grading" could be used to make these backlanes "public streets" and heighten the potential for Model 4.

In a "special" section of general residential zone "B1", conversion consistent with Model 4 lines is permitted because of the "notwithstanding" clause in Section 5.A.8 that allows for more than one main building to be erected. However, Section 5.A.5 which refers to lot coverage again proves to be restrictive in that only 35% of the lot can be covered.

5.6.4 Model 5

Infill Model 5 would not be allowed in the general residential aone "B2" because of the lack of a section which includes a "notwithstanding" clause to allow for more than one main building to be erected. As well, Section 6.5 restricts lot coverage to not more than 35%. As existing lots are already covered close to this capacity , this would restrict any potential for infill.

In the "special" section of general residential zone "B2", a "notwithstanding" clause for erection of more than one building is included under Section 6.A.9. However, this type of development is again restricted by the lot coverage clause in Section 6.A.5 in which coverage cannot exceed 35%.

5.6.5 Discussion

In Marathon, the major stumbling blocks to intensification potential appear to be the restrictive definition of "family"; the limited uses allowed in the first residential zone; the maximum coverage allowed on a lot; minimum frontage requirments for lots; and the "not more than one main building" restriction on lot use. Under Marathon's zoning by-law, Model 1 is virtually impossible, Models 2 and 3 are technically possible but are restricted by frontage and lot coverage requirements, Model 4 is generally prohibited with the possibility of some loopholes and both Model 4 and 5 are allowed in a "special" sections of general residential zones "B1" and "B2", although again restrictions exist because of maximum lot coverage requirements.

Therefore, to allow for conversion within the two major Models (1 and 2), restrictions would have to lifted in terms of who is allowed to constitute a "family"; what frontage is required for a two-family dwelling unit and finally the major residential zone "A" should be expanded beyond the one-family dwelling unit restriction.

5.7 SUMMARY OF FINDINGS

The existing stock of owner-occupied, single-detached, grade-related dwellings in Marathon demonstrates considerable physical potential for intensification opportunities. This is particularly apparent for intensification Models 1 and 2 which require little if any changes to the exterior structure of the dwelling; that is, without requiring the addition of extra floor space. A more effective utilization of existing housing stock, wherin existing above and below-grade floor area is optimally distributed between the maximum potential number of occupants, could potentially provide dwelling space for a maximum of approximately 2000 additional residents. The significance of this physical potential is evident when we consider that the total present population of Marathon is approximately 3000 residents.

Augmenting this physical potential are those forms of residential intensification which entail the construction of horizontal additions to existing owner-occupied, single-detached dwellings with backlane access (Model 3) and those forms which entail infilling available space around existing single-family dwellings (Model 4). Together, these forms of intensification could potentially provide a maximum of approximately 75 additional dwelling units.

Clearly, the physical potential of the total stock of owner-occupied, single-detached dwellings in Marathon is considerable. However, given that the capacity of the new Hemlo-related housing development (Penn Lake Flats) is sufficient to accommodate the total projected population growth associated with the Hemlo goldfield expansion, this considerable physical potential may be of academic interest only. Should present projections fall short of the actual population growth, however, the physical potential of the present housing stock could be actualized to offset the need (in part or possibly in total) for further new housing starts and the accompanying increase in hard and soft services.

Housing in place prior to the explosion of Hemlo-related demand had the physical potential to accommodate up to a maximum of approximately 40% of the households now residing in single-detached dwellings in the new Penn Lake Flats subdivision (based on the physical potential of Model 2 only). Or, expressed in another way, the physical potential of pre-Hemlo housing stock was capable of housing up to a maximum of approximately 75% of all households currently residing in the new apartment complexes within the Penn Lake Flats subdivision (again, based on the physical potential of Model 2 only). Had this pre-Hemlo housing stock been intensified up to its potential, a significant portion of the resources and expense that were invested into Penn Lake Flats could have been avoided. All things being equal, this would have served to minimize the upward pressure on Municipal taxes that are presently being experienced in Marathon. Furthermore, by serving as an alternative to much of the new housing development, intensification of pre-Hemlo housing stock would have eased the future adjustments to downsizing and shutdowns that appear to be the inevitable and incontrovertible facts of life for small northern resource-based communities.

Residential intensification viewed strictly from an economic perspective appears to be economically feasible according to a limited number of situations. According to the assumptions applied, Model 1 forms of intensification are economically viable for single-detached dwellings with three or more bedrooms purchased for an approximate maximum price of $50,000. Such accommodation would require monthly rental payments of approximately $230 per room (for $50,000 dwellings) in order to break even. This rental rate falls approximately 30% below what the average single-member household presently pays for rental accommodation in bachelor or one bedroom units in conventional apartment buildings in Marathon.

Model 2 forms of intensification appear to be economically feasible for single-detached dwellings which can provide 900 square foot, two bedroom self-contained, below grade apartments for total creation costs of less than $92,000 per dwelling. For converted dwellings with total creation costs of approximately $47,000, the basement rental unit would require a break-even rent of approximately $280 per month. Such dwellings would be the exception in Marathon. For converted dwellings with total creation costs of approximately $67,000, the rental unit would require $360 per month to break-even. For converted dwellings with total creation costs of $92,000, the rental unit would require $460 per month. At these rates, apartments for all three creation cost categories would be reasonably competitive in a rental market where two bedroom self-contained units in conventional apartment buildings rent for approximately $450 per month.

One factor which on the surface appears to support residential intensification is the generally favourable attitude of homeowners in neighbourhoods where intensification has definite physical potential. However, inter-questionnaire response inconsistencies lead us to suspect the validity of the data and the interpretation of an overwhelming approval and acceptance of propinquant residential intensification by Marathon homeowners. It is recommended that this finding be applied cautiously.

There are three main factors which militate against the full utilization of the physical potential of existing housing stock. Attitudes of homeowners, attitudes of tenants, and the legal restrictions on intensification embodied in residential by-laws all serve to erode the potential for intensification inherent in the existing housing stock. Nine out of ten homeowners in Marathon lack sufficient incentive to be willing to become landlords. Municipal by-laws prohibit every form of intensification in every section of the community in which physical potential exists. Only half of all current tenants would prefer renting part of a house over renting a unit in an apartment building, while two-thirds of these have expectations of purchasing a home rather than continuing to rent.

SECTION 6.0

THE FEASIBILITY OF RESIDENTIAL INTENSIFICATION IN MANITOUWADGE

Manitouwadge is a Noranda town. Between its two divisions (Geco and Hemlo) Noranda either owns outright, holds the mortgage, or reserves first right to purchase approximately 97% of the total single-detached housing stock. Noranda also owns approximately 30% of all conventional self-contained apartments and almost 75% of all single-residency units.

Concentration of ownership to this extent has posed problems in the adjustment of the local housing market to increasing demand associated with the Hemlo goldfield expansion. In particular, Noranda's practice of subsidizing employee housing has created a dual housing market (purchase and rental) pricing structure which severely discriminates against non-Noranda residents. Noranda-related accomodation exerts extreme competitive influence on the local housing sector. One result of this is the development of an extreme dichotomy of accomodation prices and a general shortage of non-Noranda rental and purchase stock (Stafford et. al., 1986).

The other major housing owners are the Ontario Housing Corporation which presently owns approximately 20 single-detached units with an additional seven dwellings under construction; the Township of Manitouwadge owns nine single-detached units and approximately 180 mobile unit lots; the Lake Superior Board of Education which owns three apartment buildings with a total of 29 units; Lac Minerals which owns four apartment blocks with a total of 48 units; and a local contractor who owns a 50 unit single-residency complex. Privately held dwellings which have no association with Noranda are almost completely limited to mobile units which rest on lots rented from the Township.

The following indicates the structure of the existing housing stock in Manitouwadge:

	Pre-Hemlo	Hemlo	Total
Single-detached	752	151	903
Apartment units	77	32	109
Single-residency units	190	0	190
Mobile units	167	0	167
Vacant housing lots	0	94	94
Vacant mobile lots	0	4	4

For the purposes of this study, only owner-occupied, grade-related, single-detached dwellings are viewed as representing intensification potential. According to our housing stock inventory, pre-Hemlo subdivisions include approximately 750 single-detached dwellings. However, a large percentage of these dwellings are rented to the present occupants by Noranda. According to 1981 Census data, 49% of all single-detached dwellings in Manitouwadge .are rented. Assuming this same rental rate exists presently, approximately 370 of the total 750 pre-Hemlo single-detached homes are currently under rental agreements, and thereby excluded from Manitouwadge's stock of owner-occupied dwellings (this rental rate for single-detached dwellings is considerably higher than Marathon at 9%-1981 Census).

The widespread subsidization of Noranda housing explains the high rental rate in Manitouwadge. According to interviews with Township officials, Noranda's older, single-detached dwellings rent for between $100 and $120/month while their newer dwellings (pre-Hemlo, 5-10 years old) rent for approximately $175/month.

Given these low monthly rental payments, occupants may not be inclined to enter into home ownership and mortgage agreements. These rental rates are made to appear even more attractive by the comparatively high rental rates for privately owned mobile units at $700-$1000/month.

6.1 THE PHYSICAL POTENTIAL OF EXISTING STOCK

The residential area of Manitouwadge can be seen to be divided into three main subdivisions according to the period of construction. The bulk of the grade-related, single-detached dwellings (620) were constructed 15-30 years ago. Most of them are Noranda (Geco) houses. Two main structural forms predominate in this old residential subdivision. Firstly, there is the three bedroom bungalow with or without basement. Bungalows with full basements have split rear entrances which lend themselves to separate basement entry systems. Unfortunately, plot plans are not available for pre-Hemlo housing through Township offices or through the Land Titles Registry in Thunder Bay. However, estimates of floor area were obtained from the Manitouwadge building inspection office. Accordingly, the average floor area of the bungalow design in the old residential section is approximately 650 square feet.

The second most predominant dwelling form in this section is the one and one-half storey with two bedrooms on the second floor, one bedroom, full bathroom, eat-in kitchen and living room on the main floor. All have full basements with split rear entry. Floor area for both storeys combined is approximately 1025 square feet (reflecting loss due to second storey stairway; not including optional rear dormer).

The second subdivision was constructed largely within the last 15 years. Most grade-related, single-detached dwellings in this subdivision are of a bungalow design with full basement. Slightly larger than the bungalows in the older subdivision, the average floor area here is approximately 850 square feet. There is, however, a broader range of dwelling styles including splits, full raised basements, L-shapes, and mobile units. There is also a broader range of ownership including Noranda (Geco), Noranda (Hemlo), Ontario Housing Corporation, Lac Minerals, and private owners.

6.1.1 Infill Models 3,4,5

Infill potential in the pre-Hemlo subdivisions is virtually non-existent as defined by Models 3, 4 and 5. There are no available building lots in pre-Hemlo areas zoned residential with servicing. Conversion through Models 3 and 4 are limited by the lack of backlanes which are required to provide separate access. Presently, Model 5 infill opportunities do not exist in and around apartment complexes although the new Noranda (Hemlo) apartment complexes (32 row and bachelor units) did emerge out of vacant space around the old Lac Minerals apartment complex (144 units).

The third subdivision has been constructed within the last two to three years and was induced by the growing demand for housing associated with the Hemlo goldfield expansion. Presently there are 151 single-detached side and front splits with main floor and full basements. Each unit contains 925 square feet of floor space on the main level.

The vast majority of these dwellings are owned by the present occupants who are under an obligatory 10 year (minimum) mortgage agreement with Noranda (Hemlo Division). Noranda employees are allowed to purchase the units for approximately $27,000-29,000. The construction costs to Noranda are between $55,000 and $65,000.

Within the Hemlo subdivision there is some potential for new development. There are presently approximately 94 building lots surveyed but only a small percentage are serviced. By 1988, this subdivision is projected to haved swelled to 230 houses form its current 150 (Stafford et.al, 1986:11). Of course, this new development, and its present potential, cannot be regarded as intensification potential in the strict sense of the concept because this new development will transpire according to conventional standards. New construction on empty lots is simply a continuation of a process intitiated two to three years ago on the basis of projected Noranda (Hemlo)-related housing needs. Therefore, there exists in Hemlo subdivisions no significant intensification potential through models of intensification consistent with infill activities.

6.1.2 Model 1

In the proceeding section on Marthon's physical potential through Model 1, we utitlized a method which entailed cross-tabulating gross floor area/person ratios and numbers of occupants for a random sample of owner-occupied, grade-related, single-detached dwellings. After determining the surplus gross floor area/person and its distribution between dwellings, an estimate of the number of additional occupants that the surveyed dwellings could potentially accommodate was made. This finding was extrapolated to the total population of single-detached dwellings in Marathon to give an estimate of the aggregate physical potential of existing housing stock for intensification through Model 1.

This same procedure is applied to a random sample of 76 Manitouwadge owner-occupied, grade-related, single-detached dwellings. The following highlights the findings for both pre-Hemlo and Hemlo subdivisions for the physical potential of Model 1:

	Pre-Hemlo Subdivisions	Hemlo Subdivisions	All Subdivisions
Number of dwellings	62	14	76
Number of dwellings that can potentially accommodate at least one additional occupant	7	4	11
Number of occupants presently residing in dwellings	208	50	258
Number of additional occupants potentially accommodated	11	5	16

If we extrapolate our sample findings to the total number of owner-occupied, single-detached dwellings in Manitouwadge, we estimate that pre-Hemlo housing stock has the physical potential to accommodate 67 additional occupants through Model 1; Hemlo housing stock has the physical potential to accommodate 54 additional occupants through Model 1. The following details the extrapolation:

	Pre-Hemlo Subdivisions	Hemlo Subdivisions	All Subdivisions
Number of dwellings	380	151	531
Number of dwellings that can potentially accommodate at least one additional occupant	43	43	86
Number of occupants presently residing in dwellings	1368	544	1912
Number of additional occupants potentially accommodated	67	54	121
Percent increase additional occupants represents over existing occupants	5%	10%	6%

6.1.3 Model 2

Both above-grade and below-grade Model 2 conversions require substantial renovations in order to create a self-contained dwelling unit in a basement or on a first or second floor. It has already been noted that approximately half of all pre-Hemlo single-detached dwellings are occupied by renters. These renters are legally bound not to make such renovations. This leaves approximately 380 owner-occupied dwellings in pre-Hemlo subdivisions with the appropriate tenure characteristics for potential conversion.

Two main possibilities for the application of Model 2 exist in pre-Hemlo subdivisions. Firstly, the one and one-half storey dwellings could be converted into two self-contained apartments,one on each floor. However, the second floor area in dwellings without rear shed dormers (the majority) contains less than 400 square feet. Furthermore, given the presence of knee-walls and low sloping ceilings, the volume of actual living space is much less than in an equivalent sized dwelling with standard ceiling heights. Nevertheless, the Ontario Building Code stipulates that bachelor apartment units contain at least 250 square feet of floor area, and on this basis the second floor of these dwellings have the physical potential to provide a separate dwelling unit. On the basis of 250 square feet of floor area/person, this unit could potentially accommodate one person.

The main floor of the one and one-half storey single-detached contains one bedroom, a full bathroom, living room and kitchen. Its floor area is approximately 700 square feet. Some of this floor area would be lost to the construction of a separate entrance to provide for the upstairs apartment. Nevertheless, the main floor would be physically capable of accommodating two occupants.

As was indicated in the section on Marathon (5.1), conversion of this sort, while increasing the total number of dwelling units in Manitouwadge, would actually reduce the number of occupants capable of being accommodated by the converted dwellings. The one and one-half storey in unconverted form contains approximately 1025 square feet and is able to house up to four occupants (gross floor area/person ratio of 256 for four persons). After conversion into two separate apartments, only three persons (maximum) could be accommodated, one on the second level and two on the main level.

Of the eleven one and one-half storey dwellings included in our sample of pre-Hemlo subdivisions, all but one have four or more occupants. Since conversion according to Model 2 (above grade) would limit the number of occupants to a maximum of three, conversion of ten out of eleven one and one-half storey dwellings would result in a de-intensification of housing stock and would, therefore, not be recommended.

The second possibility for the application of Model 2 exists below grade for both pre-Hemlo and Hemlo subdivisions. In pre-Hemlo subdivisions, there are approximately 380 owner-occupied, single-detached dwellings. Based on our sample findings, we estimate that approximately 60 of these dwellings do not have basements. There remains, therefore, approximately 320 owner-occupied, single-detached dwellings in pre-Hemlo subdivisions with full basements. Sample findings also suggest that approximately 105 of these dwellings that have finished basements for the use of family members, leaving approximately 215 owner-occupied, single-detached dwellings in pre-Hemlo subdivisions with the physical potential for Model 2 (below grade).

In order to determine the intensification potential of the estimated 215 full basements in pre-Hemlo subdivisions, usable floor area must be considered for each of the two major dwelling designs. The one and one-half storey dwellings with unfinished basements (estimated to be 49 dwellings or 23% of all pre-Hemlo, owner-occupied dwellings with unfinished basements) each provide approximately 525 square feet of net floor area (700 square feet minus 25% for furnace, plumbing equipment, laundry room, staircase and hallway). This amount of floor area is sufficient to accommodate a maximum of two occupants. The Model 2 (below grade) physical potential of all 49 one and one-half storey dwellings, therefore, offers living space for a maximum of 98 additional occupants (minimum floor area/person of approximately 263 square feet).

The pre-Hemlo bungalow, considerably smaller on average than the one and one-half storey, is capable of accommodating fewer additional occupants below grade. However, there are more pre-Hemlo bungalows than one and one-half storeys. We estimate that pre-Hemlo subdivisions contain 166 bungalows with unfinished basements with an average of approximately 750 square feet of floor space, of which approximately 565 square feet would be available living space (minus 25%). Each pre-Hemlo bungalow with unfinished basement has the physical potential of accommodating a maximum of two additional occupants (283 square feet/person). The physical potential of all such pre-Hemlo bungalows affords below-grade living space for a maximum of approximately 332 additional occupants in Manitouwadge.

In Hemlo subdivisions there exist 151 owner-occupied, grade-related dwellings with full basements. According to our sample, approximately 43% of these dwellings have finished or partially finished basements for family use. Approximately 80 Hemlo dwellings, therefore, have unfinished basements with intensification potential through Model 2 (below grade).

Hemlo dwelling basements contain 925 square feet of floor space.

Approximately 695 square feet are available for conversion after area for household equipment is deducted. This amount of area provides sufficient potential to accommodate a maximum of two additional occupants per dwellings (358 square feet/person). For all Hemlo dwellings with unfinished basements, the maximum intensification potential is 160 additional occupants.

The physical potential of model 2 for all qualified owner-occupied, grade-related dwellings in pre-Hemlo and Hemlo subdivisions is as follows:

	Pre-Hemlo Subdivisions	Hemlo Subdivisions	All Subdivisions
Number of dwellings	380	151	531
Number of occupants presently residing in dwellings	1368	544	1912
Number of additional occupants through Model 2 (above grade)	0	0	0
Maximum number of additional occupants through Model 2 (below grade)	430	160	590
Maximum percent increase additional occupants represents over existing occupants	31%	29%	31%

The following indicates the intensification potential for owner-occupied, single-detached, grade-related dwellings for both pre-Hemlo and Hemlo subdivisions for all Models of conversion:

	Pre-Hemlo Subdivisions	Hemlo Subdivisions	All Subdivisions
Model 1	67	54	121
Model 2 (above-grade)	0	0	0
Model 2 (below-grade)	430	160	590
Model 3	0	0	0
Model 4	0	0	0
Model 5	0	0	0
Total	497	214	711

6.1.4 Discussion

The physical potential of Manitouwadge's existing housing stock of owner-occupied, single-detached, grade-related dwellings appears at first glance to be considerable. For all Models of conversion there presently exists the physical potential to accommodate approximately 700 additional occupants; 83% of which would be accommodated in self-contained basement apartments, and 27% as roomers. Considering that the new Hemlo housing development accommodates approximately 550 persons, and the pre-Hemlo housing stock has the potential for accommodating approximately 500 additional persons, it can be seen that (on the basis of physical potential) a substantial portion of new Hemlo-related residents could have been accommodated by existing housing.

However, one factor which militates against the realization of this physical potential is the relatively small size of the potential basement dwelling units. According to our estimates, all potential self-contained basement apartments would only be of sufficient size to accommodate two persons. This is well below the average household size of both pre-Hemlo and Hemlo subdivisions (3.4 and 3.6 respectively). Seventy percent of Hemlo dwellings surveyed have three persons per household. This suggests that only 30% of new Hemlo households would have been small enough to suit the physical potential offered by Model 2 (below grade) conversions. For pre-Hemlo subdivisions, 71% of surveyed dwellings have three or more occupants, which again suggests that only about 30% of pre-Hemlo households would be small enough to suit the physical potential of Model 2.

The physical potential of Models 1 and 2 could best be realized by a relocation of one and two members households presently occupying dwelling units capable of housing three or more occupants to Models 1 and 2 conversions in existing homes. This type of relocation would free up the larger dwellings capable of housing three or more occupants for the larger incoming famillies. Such a relocation would result in a more efficient allocation of existing living space and a reduction in the demand for new housing.

However, the logistics of such a planned relocation of households would be complicated. The success of relocation in distributing existing living space more efficiently between the various households (old and new, large and small), would likely be slight if the process was left to slow moving market forces. This is particularly true in rapidly expanding housing markets. Therefore, success would depend upon the quick, concerted efforts of all relevant levels of government, industry and public who would have to be extremely aware of the demographics and attitudes involved. Homeowners would require attractive incentives in order to encourage them to bring conversions onto the rental market quickly. Small households (one and two members) would also require attractive incentives to encourage them to relocate to smaller dwellings than they presently occupy. Industry would have to be convinced of the benefits of intensifying existing housing stock for the purpose of accommodating new employees rather than their usual approach of new construction and heavy subsidization. The municipal level of government would no doubt be required to make rapid ammendments to existing by-laws which impede the conversion of single-family dwellings into multiple-family dwellings.

However, all of this depends in the first place on the willingness of homeowners to convert their dwellings and to become landlords. It is to this contingency that we know turn.

6.2 THE SUPPLY OF INTENSIFICATION-RELATED RENTAL ACCOMMODATION

In the following section we examine the willingness of 76 randomly selected owner-occupants of grade-related, single-detached dwellings to rent out a room(s) (Model 1) and/or to undertake a physical/structural conversion of their dwellings in order to create self-contained apartments (Models 2 and 3). The analyses are organized according to pre-Hemlo and Hemlo subdivisions identified in the preceeding section. By examining the data according to subdivision, we attempt to address the question as to the potential of pre-Hemlo housing stock for absorbing Manitouwadge's "goldrush" population growth. Secondly, it allows us an independent consideration of each of the subdivisions and an opportunity to determine which subdivision possesses the greatest intensification potential.

The socio-economic characteristics of the surveyed owner-occupants are provided for both pre-Hemlo and Hemlo subdivisions. As the previous section suggested, an awareness of the socio-economic traits of Manitouwadge's homeowners is important to any program whose objective is to encourage homeowners to rent out parts of their houses to unrelated tenants.

6.2.1 Pre-Hemlo Housing Stock

Pre-Hemlo subdivisions contain approximately 72% of Manitouwadge's total inventory of owner-occupied, single-detached dwellings. In the previous section it was estimated that this housing stock has the physical potential of providing an additional 215 self-contained apartments (Model 2-below grade) suitable for a maximum of 430 occupants. In addition, this stock has the physical potential of providing rooms for another 67 occupants (Model 1). Together, these two forms of intensification have the potential of increasing the present occupancy level of pre-Hemlo subdivisions by approximately 30%, almost sufficient to accommodate the total numbers of new Hemlo-related residents now residing in the new Hemlo housing development.

However, the physical potential for intensification of pre-Hemlo housing stock is undermined by homeowner's overwhelming unwillingness to rent out rooms and/or to convert space into self-contained apartments. The following table indicates the socio-economic characteristics of a random sample of pre-Hemlo homeowners and their attitudes towards becoming landlords.

Table 6.2.A Socio-Economic Characteristics and Willingness to Convert For Owner-Occupants of Grade-Related, Single-Detached Dwellings for Pre-Hemlo Subdivisions and Manitouwadge

Characteristics	Pre-Hemlo Subdivisions	Manitouwadge
Percentage of total sample	82 %	100 %
Average length of residency (yrs)	6	5
Average age of household head	42	40
Median household income	$30-45,000	$30-45,000
Average household size	3.4	3.4
Mortgage on house (yes)	54 %	77 %
Would consider renting out room		
- yes	0 %	0 %
- no	94 %	93 %
- maybe/don't know	6 %	7 %
Would consider converting space into apartment		
- yes	3 %	3 %
- no	94 %	95 %
- maybe/don't know	3 %	2 %
	(N=62)	(N=76)

Homeowners in pre-Hemlo subdivisions in Manitouwadge are overwhelmingly opposed to either renting our rooms or converting and renting out apartments. For both forms of intensification, 94% of all those surveyed report that they have no interest in becoming landlords. Only two homeowners out of 62 surveyed express an unqualified desire to allocate part of their present home for the purposes of renting out a self-contained apartment. Not one respondent reports a willingness to take on roomers (Model 1).

When we extrapolate these findings to the total population of owner-occupants who reside in dwellings with the physical potential for intensification, we estimate that only six homeonwers are willing to convert their basements into self-contained apartments in pre-Hemlo subdivisions. Occupied to their maximum (based on 250 square feet per person minimum), these apartments would provide living space for only twelve additional persons.

6.2.2 Hemlo Housing Stock

Hemlo subdivisions contain approximately 28% of Manitouwadge's total inventory of owner-occupied, single-detached dwellings. In the previous section on physical potential it was estimated that this housing stock has the ability to provide an additional 80 self-contained apartments (Model 2;below grade) suitable for accommodating a maximum of 160 additional occupants. This stock also has the physical potential to offer additional rooms for another 54 occupants (Model 1). Combined, these two types of intensification have the potential of increasing the present occupancy level of the Hemlo subdivisions by approximately 29%.

However, the intensification potential offered by the physical characteristics of Hemlo housing stock is virtually eliminated by homeowners overwhelming unwillingness to rent out rooms and/or convert space into self-contained apartments. The following table highlights the findings of the Hemlo subdivision survey.

Table 6.2.B Socio-Economic Characteristics and Willingness to Convert for Owner-Occupants of Grade-Related, Single-Detached Dwellings in Hemlo Subdivisions and Manitouwadge

Characteristics	Hemlo Subdivisions	Manitouwadge
Percentage of total sample	18 %	100 %
Average length of residency (yrs)	2	5
Average age of household head	33	40
Median household income	$30-45,000	$30-45,000
Average household size	3.6	3.4
Mortgage on house (yes)	100 %	77 %
Would consider renting out room		
- yes	0 %	0 %
- no	93 %	93 %
- maybe/don't know	7 %	7 %
Would consider converting space into apartment		
- yes	0 %	3 %
- no	100 %	95 %
- maybe/don't know	0 %	2 %
	(N=14)	(N=76)

The potential for intensification in Hemlo subdivisions is quashed by Hemlo homeowners' overwhelming unwillingness to rent out. A full 100% of all homeowners surveyed in the Hemlo subdivisions are opposed to renting out an apartment in their houses while 93% report not wanting to rent out to roomers. Seven percent of homeowners are undecided as to whether they would rent out rooms. Not one respondent expressed an unqualified desire to rent out to roomers.

6.2.3 Reasons For Not Wanting To Rent Out

Of the 76 homeowners surveyd in both pre-Hemlo and Hemlo subdivisions, 71 (93%) report not wanting to rent out in any way whatsoever. The reasons most frequently cited by these homeowners can be categoried as follows:

lack of privacy	62%
not enough room	27%
too much trouble	6%

6.2.4 Discussion

As is the case in Marathon, Manitouwadge homeowners are generally uninterested in renting parts of their houses out to strangers. Perhaps the most important explanatory factor here is economics. The majority of homeowners in Manitouwadge are either employed by Noranda/Hemlo or Noranda/Geco, either of which qualifies the homeowner for generous purchase subsidies. Older pre-Hemlo houses, with a market value of approximately $45,000, sell to Noranda employees for between $7,000 and $9,000. Newer pre-Hemlo Geco houses sell to Noranda employees for between $24,000 and $27,000. New Noranda/Hemlo houses, with a market value of over $70,000, sell to Hemlo employees for between $27,000 and $29,000.

Subsidies of this magnitude are meant to attract and maintain a labour force for Noranda operations. The effect, of course, is to reduce that portion of one's general cost of living attributed to housing. Survey data show that for these homeowners with mortgages (77%), the average monthly payment is a low $348.00. When respondents were asked whether they have any difficulty meeting their monthly payments, not one reported in the affirmative. Clearly, Manitouwadge homeowners are without what is perhaps the most convincing incentive to rent out: high housing costs.

Another factor which is likely to inhibit the willingness of Manitouwadge homeowners to rent out is their legal obligations to refrain from such use of their houses. Both Noranda/Geco and Noranda/Hemlo require that Noranda employees who purchase company houses enter into a mortgage agreement with the company. Within this agreement it is stipulated that the mortgagee must maintain the unit as a single-family dwelling. Such an agreement, assuming the homeowner observes his/her obligations, undermines the intensification potential of a substantial portion of the existing stock of owner-occupied, single-detached dwellings in Manitouwadge.

6.3 TENANT DEMAND

The following section examines the degree of potential demand for rental units congruent with Models 1, 2, and 3. Data were collected from a random sample of 59 Manitouwadge renters by means of telephone interviews. Respondents who pay rent to the government or other non-profit organization, or those who receive government assistance in meeting rental payments were excluded from the survey.

6.3.1 Renter Types

Manitouwadge renters are classified into two main categories on the basis of their rental unit preferences. HIGH PREFERENCE renters make up 51% of the sample while LOW PREFERENCE renters represent the remaining 49%. High preference renters are those respondents who report a high preference for renting living space in a house. Low preference renters report a low preference for renting living space in a house and express a desire to live in a conventional, multi-family apartment building. High preference renters are seen as the potential demand group for additional rental units brought onto the market through residential intensification.

The following analyses compare and contrast the two renter groups according to household characteristics, present unit charactersitics, and attitudes towards renting. The high preference renters are then examined to determine their preferences in converted units and their home purchase expectations.

The following table indicates the household characteristics of both high and low preference groups.

Table 6.3.A Household Characterisitics of High and Low Preference Groups

Household Characteristics	High preference	Low preference
Median length of residency (mos.)	12	12
Average household size	2.8	2.9
Average age of household head	32	34
Marital status		
- single	20 %	17 %
- married	73 %	66 %
- other	7 %	17 %
Median household income	$30-45,000	$30-45,000
More than one income	33 %	37 %
Dependent children at home	50 %	43 %
	(N=30)	(N=29)

In general, renters in Manitouwadge are most likely to be in their early thirties or younger (76%), married (72%-including common-law relationships), supported by one income between $30,000 to $45,000, and have resided in their present home for two years or less (60%). Of those tenants who are married, 59% who are classified as low preference renters have at least one dependent child living at home while 68% who are classified as high preference renters have at least one dependent child living at home.

The data indicate few differences between the two renter groups on the basis of household characteristics. There is mild suggestion that high preference renters are more likely to be married with children living at home and supported by a single income. For these respondents, the average number of children living at home is 1.9, the median number is two.

Most Manitouwadge renters surveyed presently live in houses (61%). Of these, 42% report a preference for living in a conventional apartment building. For renters who live in houses, 86% rent the entire detached house. For those who rent an entire detached house, 97% have three or more bedrooms. The average monthly rent for those who rent entire detached houses is $201.

Thirty-nine percent of renters surveyed live in conventional apartment buildings. Thirty-nine percent of these tenants report a preference for living in an apartment in a house rather than their present accommodations. For renters in apartment buildings, 61% have two or more bedrooms. The average monthly rent for apartment tenants is $245.

The following table indicates the present unit characteristics of both high and low preference renters.

Table 6.3.B Characteristics of Housing Units in High and Low Preference Groups

Present Unit Characteristics	High preference	Low preference
Building type		
- apartment building	30 %	48 %
- house	70 %	52 %
Number of Bedrooms		
- bachelor	7 %	7 %
- 1 bedroom	13 %	7 %
- 2 bedrooms	13 %	38 %
- 3+ bedrooms	67 %	48 %
Average monthly rent	$210	$248
	(N=30)	(N=29)

Over two-thirds of renters surveyed with a high preference for living in a house already do so. The majority of these high preference renters have three or more bedrooms and pay a monthly rental charge of about $210.00. It is unlikely to expect that these renters, the majority of which currently rent entire detached houses (85%) would choose to rent a small, self-contained apartment in the basement of other peoples' houses, especially given that these renters are already paying such low rents for three bedroom accommodation. Therefore, for our purposes, these renters, although expressing a high preference for living in a house, are not considered part of the potential demand group for Models 1, 2, and 3 conversions.

The following table indicates the attitudes of both high preference and low preference renters towards the advantages and disadvantages of living in an apartment in a house.

Table 6.3.C. Attitudes Towards Renting Held by High and Low Preference Groups

Attitudes	High Preference	Low Preference
Percentage of total sample	51%	49%
Rented in house before (yes)	67%	66%
Advantages of a house	100%	100%
- more home like	11%	0%
- more privacy	50%	40%
- access to yard	11%	4%
- more sociable	3%	4%
- fewer landlord problems	0%	16%
- quieter	8%	0%
- miscellaneous	17%	36%
Disadvantages of a house	100%	100%
- less privacy	17%	33%
- more maintenance	0%	11%
- landlord problems	25%	11%
- more noise	17%	11%
- more expensive	8%	0%
- miscellaneous	33%	23%
	(N=30)	(N=29)

More high preference renters perceive at least one advantage to living in an apartment in a house than low preference renters (90% versus 64% respectively). Advantages of an apartment in a house as opposed to an apartment building most frequently mentioned by high preference renters are more privacy, more home-like, and access to a yard.

Similarly, more high preference renters perceive at least one disadvantage to living in an apartment in a house than low preference renters (67% versus 52%). Disadvantages of an apartment in a house most frequently mentioned by high preference renters are landlord problems, less privacy, and more noise. The disadvantages most frequently reported by low preference renters are less privacy, more maintenance, landlord problems and more noise.

Table 6.3.D. Level of Satisfaction with Renting of High and Low Preference Groups

Satisfaction with renting	High preference	Low preference
Pleased about renting and will continue to rent	50%	45%
Unhappy about renting and will buy within 3 years	40%	38%
Unhappy about renting, but must continue to rent	10%	17%
	(N=30)	(N=29)

Both renter groups are about evenly split between being satisfied with renting and dissatisfied with renting. Slightly more renters from each group report a willingness to continue to rent rather than reporting being unhappy to the point of making plans to purchase within three years. Slightly more low preference renters who are dissatisfied with renting perceive themselves to be in a position wherein they are forced to continue renting.

When we look just at the potential demand group identified as those high preference renters currently renting units in apartment buildings, we note a trend similar to the overall findings: 56% are satsified with renting and plan to continue while 44% are unhappy and plan to buy within the near future.
Half of all high preference renters are presently satisfied with renting out and report a general willingness to continue to rent. Two-thirds of this group currently reside in single-detached dwellings. These renters, although expressing a high preference for living in a house, cannot be viewed as part of the potential demand gorup for dwellings created through intensification activities because they are presently happy with their current housing arrangements. That is, they are currently renting houses.

One-third of all high preference renters who report being satisfied with renting reside in conventional apartment buildings. This group can be seen as a potential demand group because they express a preference for living in a house while at the same time expressing a desire to continue to rent. Presumably, therefore, these renters would choose to rent accommodation in a house rather than continue living in their present apartment building should suitable house accommodation become available. This potential demand group is relatively small, however, making up approximately 8% of all renters surveyed.

Approximately 40% of high preference renters express a general dissatisfaction with renting and report the desire to purchase within three years. It is this renter group which poses the greatest potential demand on the new housing market by generating the need for new housing stock. If this demand is to be curtailed, or possibly re-directed towards rental accommodation brought onto the market through intensification projects, the sources of dissatisfaction with renting must be identified and reduced.

Unfortunately, the data collected from these renters are insufficient to draw valid inferences about the precise nature of their dissatisfaction with their present housing arrangements. We do know, however, that approximately two-thirds of these renters are presently living in houses while one-third lives in apartment buildings. We could assume that for the apartment dwellers their main source of dissatisfaction is related to the fact that they are living in an apartment building given that they have expressed a preference for living in a house. Given that the rental market for houses and apartments in houses is extremely limited in Manitouwadge, these apartment dwellers may perceive that their only chance for living in a house is through the purchase of one. If these renters were provided with more options related to house accommodation (eg. Models 1, 2, and 3), it is possible that some of these renters may forgo their present plans to purchase a house and be satisfied with suitable rental accommodation in existing housing. For this reason, this group can be seen as a potential demand group for types of accommodation created through intensification of existing housing stock. Again, this is a relatively small group at 8% of all renters surveyed.

High preference renters who express dissatisfaction with renting and the desire to purchase a house but who presently reside in houses are not likely to represent a potential demand group for converted accommodation. These renters (27% of all high preference renters and 14% of all renters surveyed) are probably not so much dissatisfied with the physical characteristics of their present accommodation as with the factors related simply to renting (landlord problems, lack of autonomy, high rental payments, status considerations, etc.). That is, these renters already reside in houses and are still not satisfied. Given the overwhelming homogeneity of housing stock characteristics (size, basic structural design, location), a simple move from one rented house to another rented house of essentially the same characteristics is not likely to satisfy the majority of these renters. It is speculated here that it is the act of renting itself which is the source of dissatisfaction among the group of renters. Homeownership, therefore, may be the most practical solution to their dissatisfaction. Going from renting an entire house to renting a self-contained apartment in the basement of someone else's house is not likely to bring about contentment. For this reason, this group of renters is not viewed as a part of the overall potential demand group.

Approximately 10% of all high preference renters are currently unhappy with renting but feel that they must continue to rent. All of these respondents presently reside in houses. According to the same logic offered above for dissatisfied renters who presently reside in houses but plan to purchase in the near future, we can exclude these renters from the potential demand group. That is, they are opposed to renting itself and are, therefore, not likely to be satisfied by renting acccommodation congruent with Models 1, 2 and/or 3. When asked if they thought they would be able to purchase a home, all of these respondents replied in the negative. Therefore, they expect to continue to rent not because they enjoy renting, but because they perceive that they cannot afford to purchase.

6.3.2 Potential Demand Group for Intensification-Related Accommodation

We have seen that for Manitouwadge the identification of renters as high preference does not in-and-of-itself define the potential demand group for house-related accommodation. In the Marathon study the direct relationship between being a high preference renter and a member of the potential demand group exists because over 90% of all renters surveyed live in conventional apartment buildings. In Manitouwadge, however, over 60% of all renters surveyed live in single-detached houses while 70% of high preference renters already live in houses. It is our position that renters who presently occupy entire houses are not likely to gear down to conversion accommodations such as Models 1, 2 and/or 3 in significant numbers. Therefore, for the purposes of the analyses that follows, the potential demand group is defined as only those high preference renters who currently reside in conventional apartment buildings. These renters (9 respondents) make up 30% of the high preference group and 15% of all renters surveyed.

By assuming that our survey of apartment dwellers (23 respondents) is representative of all apartment dwellers in Manitouwadge, we can extrapolate the size and household characteristics of the potential demand group from our sample to that of the larger population of apartment dwellers. However, because of the small number of cases from which we draw our inferences, and the unlikihood that representativeness is upheld in perfect measure, such extrapolations should be viewed as general estimates and interpreted and applied cautiously.

Presently in Manitouwadge there are approximately 300 households residing in conventional apartment units. We include in this estimate all single residency/dormitory style units, bachelor units, and all apartment units with one or more bedrooms contained in all legal, multiple-family buildings. All self-contained apartments and rooms-for-rent in single-detached, owner-occupied dwellings are excluded from this estimate. The potential demand group identified in our sample represents approximately 40% of all apartment renters surveyed. The remaining 60% of apartment renters have been defined as low preference renters and are, therefore, uninterested in renting living space in a house. By extrapolation, there exist in

Manitouwadge approximately 120 apartment households which constitute the potential demand group for rental units brought onto the market through residential intensification. The following analyses focus on the household characteristics and attitudes of this potential demand group for the purposes of identifying the magnitude and nature of potential rental demand associated with existing housing stock.

The following highlights the household characteristics of the potential demand group for rental accommodation through residential intensification:

Table 6.3.E. Household Characteristics of Potential Demand Group for Rental Accommodation

Median length of residency (months)	12
Average household size	1.8
Average age of household head	29
Marital status	
- single	56 %
- married	44 %
- other	0 %
Median household income	$30-45,000
More than one income (yes)	38 %
Dependent children at home	33 %
Present building type	
- apartment building	100 %
- house	0 %
Number of bedrooms	
- bachelor	22 %
- 1 bedroom	33 %
- 2 bedrooms	34 %
- 3+ bedrooms	11 %
Average monthly rent	$253

Household size has important implications for the potential of residential intensification given the limitations of space typical of Models 1 and 2. It has been noted above that virtually all of the potential self-contained apartment conversions in Manitouwadge are suitable for not more than two tenants only. While the average household size of the potential demand group is 1.8, 33% of these households contain three or more members. It is felt that these households would face extreme difficulties in trying to locate converted apartments of adequate living space given the limitations of the physical potential of Manitouwadge's existing stock of owner-occupied dwellings. Therefore, only about two-thirds of the potential demand group could possible be accommodated by the community's physical housing potential.

At the other end of the scale, households with only one member have implications for rental demand. Whereas virtually every household of the potential demand group with two or less members could be potentially accommodated by intensification developments consistent with Model 2, Model 1 is only capable of accommodating single persons/occupants. Therefore, the proportion of the potential demand group that could possibly be accommodated by Model 1 applications is 56%. This is a significantly higher proportion of single-member households than exists in the larger population (19%). This suggests that over half of the total number of households which make up the potential demand group could potentially be accommodated by Model 1 forms of housing. However, when these single-member households were asked about their preferences regarding rental accommodation, 88%

report a first rental preference inconsistent with Model 1. In fact, 78% of all single-family households rate Model 1 as either their second to last or last preference out of four possible rental accommodation preferences. Clearly, then, the potential demand for Model 1 types of accommodation is virtually non-existent given the potential demand group's negative attitudes towards renting just a room in an owner-occupied, single-detached dwelling.

The physical potential for Model 2 (below grade) exceeds the estimated potential demand for rental accommodation consistent with Model 2. It was indicated in Section 6.1 that approximately 295 self-contained basement apartments could potentially be created in both pre-Hemlo and Hemlo subdivisions. Including only those renter households in the potential demand group with no more than two members, it is estimated that approximately 80 households in Manitouwadge are currently potential tenants for Model 2 conversions. When a sample of these respondents was asked about the advantages and disadvantages of living in an apartment in a house, all respondents express at least one advantage while only 22% express at least one disadvantage. The advantage most frequently cited is that houses afford the tenants greater privacy (63%). Other advantages cited are that houses are quieter than apartment buildings, there is more space in a house, and a house provides a more sociable environment for its tenants. Only two respondents suggested at least one disadvantage of renting an apartment in a house: houses are likely to be noisier than an apartment building; and the rent is likely to be higher in a house.

Additional concerns expressed by the potential demand group are as follows:

Table 6.3.F. Very Important Factors Associated with Renting an Apartment in a House

	Judged Very Important by:
Private bath and kitchen	100%
Monthly rent	89%
Location	56%
Number of bedrooms	78%
Availability of parking	78%
Floor of house	33%
Private, separate entry	44%
Access to backyard	67%
Absentee landlord	33%
	(N=9)

Aside from privacy, the potential demand group for Model 2 conversions would be interested in rental accommodation which provides private baths and kitchens, reasonable monthly rent (around $250.00 per month), adequate numbers of bedrooms and space, parking and access to backyards. Of less importance would be the location of the units, whether or not the units have private entrances, what floor the units are on, and whether or not the landlords lived in the same house.

6.3.3. Rental Unit Supply Potential

Approximately 40% of all renters surveyed express a general dissatisfaction with renting and plan to purchase a house within three years. Renters who do eventually buy houses become potential landlords and potential suppliers of rental accommodation. When asked if they would consider becoming landlords once they had purchased a house, 12% of renters indicate that they would consider renting out a room while 22% indicate that they would consider creating a self-contained apartment and renting it out. Not a single respondent felt that his/her ability to afford a house is contingent upon renting out a room or apartment.

6.3.4 Discussion

Manitouwadge has a relatively small potential demand group for rental accommodation consistent with the specific models of residential intensification (in particular, Models 1 and 2). It is estimated that only 15% of current renters in Manitouwadge represent the potential demand group for conversion styles of accommodation, whereas approximately 50% of current renters in Marathon represent the potential demand group. The difference can be explained by the variations between each communitity's rental market. In Marathon the majority of renters reside in conventional apartment buildings whereas in Manitouwadge the majority of renters reside in houses. The majority of Marathon renters who express a strong preference for living in a house are seen as being potential tenants for conversion styles of accommodation. In Manitouwadge, however, all renters who express a strong preference for living in a house are seen as being potential tenants inasmuch as most of them are already residing in houses.

The structure of Manitouwadge's rental market is characterized as being constituted by a relatively large number of single-detached dwellings and a relatively small number of conventional apartment units. This has no doubt been brought about through the housing subsidization practices of the major employer in Manitouwadge. Because rental rates for single-detached dwellings have been maintained at such a low level, large numbers of occupants have been satisfied with continuing rental arrangements rather than exercising their option to purchase. This has resulted in maintaining a large proportion of the single-detached housing stock in Manitouwadge in a state of rental tenure as opposed to ownership tenure.

A second consequence of subsidization has been to discourage the private development of both conventional apartment units and conversion apartment units. Subsidization of housing tends to establish a general housing cost below that which free market forces and the dynamics of supply and demand would otherwise set. The price system becomes ineffective (rigid) and militates against those developers who must base their break-even rents on market factors subject to inflationary pressures. Developers and homeowners find it difficult, if not impossible, to compete with the rock-bottom subsidized rental rates, while at the same time renters come to expect these rock-bottom rates. As a result, few new apartment units are brought onto the market and the structure of the rental market remains skewed in the direction of old, single-detached housing.

The vast majority of single-member households express negative attitudes towards renting out rooms which eliminates the potential of Model 1 in Manitouwadge. Of course this negative attitude does not seriously undermine any significant opportunities for residential intensification given that the physical potential of Manitouwadge's entire housing stock affords for only approximately 16 additional occupants through Model 1 applications (Section 6.1).

The household characteristics and attitudes of the majority of the potential demand group best suit the conversion forms consistent with Model 2. This group is comprised of households with two or less members in their middle to late twenties with incomes between $30,000 and $45,000. In an effort to satisfy the dwelling preferences of this group, Model 2 self-contained apartments should be designed to ensure privacy and minimum noise levels, provide access to a backyard and parking. They must contain a private kitchen and bathroom, and in the majority of cases at least one enclosed bedroom. Monthly rent should not exceed $250. It matters little what floor apartments are on nor whether landlords reside in the same house. A separate entry is not essential in the majority of cases.

6.4 NEIGHBOURHOOD RESISTANCE TO RESIDENTIAL INTENSIFICATION

The following section examines the attitudes of Manitouwadge residents towards residential intensification through Models 1 and 2. Models 3, 4, and 5 are excluded from the following analyses given that the phsical potential of the existing housing in Manitouwadge virtually precludes these forms of intensification (see Section 6.1).

Data were collected by means of a telephone survey of 46 randomly selected Manitouwadge homeowners. Interviews were conducted with household heads and efforts were made to maintain a 1:1 male/female ratio.

Table 6.4.A Household Characteristics of Respondents in Neighbourhood Resistance Survey

Average household size	3.2
Children in household	
- yes	59 %
- no	41 %
Share present accommodation	
- yes	2 %
- no	98 %
Marital status	
- single	9 %
- married	84 %
- separated	7 %
- widowed	2 %
Median household income	$30-34,999
Average age of respondent	39
Sex of respondent	
- male	50 %
- female	50 %
	(N=46)

The majority of households surveyed are comprised of relatively young famillies with children (2.1 children/family for those households with children). The average household has 3.2 members supported on approximately $30,000-$35,000. The number of households presently sharing their dwellings with unrelated persons is unsignificant.

Table 6.4.B Household Characteristics Of Respondents in Neighbourhood Resistance Survey

Average length of residence	7 years
Degree of noticeable change in immediate neighbourhood since moving in	
- great deal	61 %
- somewhat	22 %
- not at all	17 %
- dont't know	0 %
Very noticeable changes	
- new apartment buildings in area	0 %
- older houses being turned into apartments	4 %
- older houses being turned into rooming houses	0 %
- houses being renovated or fixed up	72 %
- houses becoming rundown	7 %
- people of lower incomes moving in	4 %
- people of higher incomes moving in	37 %
- more children in the area	74 %
- more elderly in the area	33 %
- more people of different ethnic backgrounds moving into the area	33 %
	(N=46)

The average length of residency of surveyed homeowners is seven years. Over 80% of these homeowners have noticed some degree of noticeable change in their immediate neighbourhood with the majority of these noticing a great deal of change. The most noticed physical change has been that houses are being renovated (72% of respondents). The most noticed social change has been that more children are now living in the area (74% of respondents). Other very noticeable social changes have been that households of higher income are establishing themselves in the area (37% of respondents), more elderly persons are evident (33% of respondents), and more people of different ethnic backgrounds are moving in (33% of repondents). When asked whether the changes that have been taking place in their immediate neighbourhood have been for the better or worse, 84% of respondents report "for the better".

According to the perceptions of surveyed homeowners, very little residential intensification has taken place in Manitouwadge in recent years. Almost two-thirds report that they have noticed no older houses being converted into apartments while almost 90% report that they have noticed no older houses turning into rooming houses. When Models 1 and 2 were described to respondents and asked whether changes congruent with these models have been taking place in recent years, 91% of respondents report that they have not noticed Model 1 intensification while 91% of respondents report that they have not noticed Model 2. Models 3, 4 and 5 have not been noticed by any of the surveyed homeowners.

6.4.1 Attitudes Towards Residential Intensification

Homeowners were questioned about their views and opinions on specific types of changes in their immediate neighbourhood that would result in the residential intensification of existing dwellings. In particular, they were asked if they would object to changes consistent with Models 1 and 2 should they take place in their area. Their reactions were as follows:

Reaction	Model 1	Model 2
Object	9 %	9 %
Depends	0 %	0 %
No objection	91 %	91 %
Don't know	0 %	0 %
		(N=46)

The overwhelming majority of respondents surveyed have no objection to residential intensification through Models 1 and 2. Approximately 90% are in favour of both types of conversion. For the few who do object, the main reasons given are parking problems, the perceived likihood of the neighbourhood becoming dominated by singles households, and the possibility of an increase in the number of renters and the perceived detrimental impact on property values.

When asked what the advantages of residential intensification through Models 1 and 2 might be, almost 60% of respondents feel that there would be no specific advantages. For those respondents who perceive advantages (41%), 65% report that intensification would help to alleviate the housing shortage. Other perceived advantages are that intensification would tend to drive down rental rates, it would provide the most appropriate accommodation for specific renter groups (e.g. singles), and it would serve to increase the volume of rental units relative to purchase units thereby helping to maintain a high ratio of rented units to owned units...a situation perceived by one respondent to be "healthy" for single industry communities with transient labour forces.

Table 6.4.C The Types of New Households Preferred By Neighbourhoods

Preferences in Households	First Choice
Young, married couples	86 %
Seniors	6 %
Young, single persons	3 %
No preference	5 %
	100 %
Young couples with children	67 %
Young couples without children	13 %
No preference	20 %
	100 %
Higher income households	2 %
Lower income households	2 %
Similar income households	65 %
No preference	31 %
	100 %
More owners	74 %
More renters	2 %
No preference	24 %
	100 % (N=46)

Manitouwadge homeowners surveyed prefer young married couples with children who own their houses and earn an income which approximates the neighbourhood average. It is this type of household, however, that residential intensification in Marathon is least likely to serve. The requirements of Model 1 tenancy preclude couples and children. The limited physical potential of Model 2 precludes households of more than two members thereby ruling out children. Both models imply rental tenure as opposed to ownership which contravene the tenure preference of three-quarters of homeowners surveyed.

The least preferred household is the young, single member household with an income below the neighbourhood average residing in rental accommodation. Ironically, this is the very household most likely to be potentially served by residential intensification. Section 6.3 indicates that the potential demand group for conversion accommodation is overwhelmingly young and single. We might assume that their average household income may fall below the average (if not the median) due to the fact that in every case only one income will contribute. Also, the tenure arrangements will obviously be rental and will thereby be subject to the objections of three-quarters of the present neighbourhood homeowners.

As in the Marathon study, then, we notice an apparently blatant contradiction between the reported general acceptance of residential intensification by Manitouwadge homeowners and their expressed preference for households which are not appropriate to the requirements of conversion-related tenancy. We might surmise, as we do for Marathon, that Manitouwadge homeowners have had little experience with residential intensification upon which to base an informed opinion. Because the typical negative aspects of residential intensification are generally unfamiliar to most homeowners, they may be unprepared to offer a justifiable objection when the interviewer poses the question. There may be some question, therefore, as to whether the overwhelming support for residential intensification reported by Manitouwadge homeowners (90%) can be viewed as valid and reliable. It is recommended, therefore, that this finding be applied in a judicious manner.

6.5 THE ECONOMIC FACTORS OF INTENSIFICATION

The following section examines the economic feasibility of intensification through Models 1 and 2 in Manitouwadge. Economic feasibility is determined through a comparision of break-even rents for the two models and existing market rental rates for similar accommodation. The reader is directed to Section 5.5 of the Marathon study for an explanation of the method by which break-even rents are calculated. Revisions to this method are necessary due primarily to the generally smaller dimensions of the relevant housing stock in Manitouwadge and the lower purchase price range. Firstly, Models 1 and 2 apply to three bedroom single-detached dwellings of 750 square feet of above-grade floor area. In the case of Model 2, the net floor area of the newly created below-grade apartment is 500 square feet and contains a fully equipped eat-in kitchen, living room, full bathroom, one bedroom, and a separate entry at the rear of the house. Sound proofing between floors is included in the alteration/construction costs.

The second revision to the method of calculating break-even rents refers to the range of acquisition costs. Due to Noranda's policy of employee housing subsidization, purchase prices are considerably lower than in Marathon. For the purposes herein, the acquisition costs are $15,000, 30,000, and 50,000. For Noranda-related households which make up the majority of the households in Manitouwadge, $15,000 represents the approximate purchase price for one of the original single-detached dwellings. A Noranda (Hemlo) employee can purchase a new Hemlo-related house for approximately $30,000. Non-Noranda employees are forced to pay approximately $50,000 for one of the original single-detached units in Manitouwadge.

6.5.1 Model 1

The following analysis is based on a three bedroom, owner-occupied, grade-related dwelling. As in the Marathon study, the investor model is employed. This means that each of the three bedrooms represents a one-third use of the total dwelling and all its facilities and is expected to be responsible for a one-third portion of all related costs. A roomer who occupies one bedroom is therefore expected to contribute a monthly rental payment equal to one-third of total dwelling costs. Anything less is viewed as subsidization while anything more is viewed as profit.

Table 6.5.A details the costs associated with the three acquisition costs categories for Model 1:

Table 6.5.A Model 1 by Owner-Occupied, Single-Detached Dwelling With Three Bedrooms

CREATION COSTS			
1. Acquisition costs	$15,000	30,000	50,000
2. Alteration costs	---	---	---
3. Soft costs	---	---	---
Total creation costs	15,000	30,000	50,000
Equity position (25% of creation costs)	3,750	7,500	12,500
Remaining costs to finance	11,250	22,500	37,500
FINANCING COSTS			
1. Return on equity (8%)	300	600	1,000
2. Remaining costs at 10%	1,125	2,250	3,750
Total financing costs	1,425	2,850	4,750
OPERATING COST			
1. Taxes	300	600	1,000
2. Insurance	75	150	250
3. Maintenance/upkeep	190	190	190
4. Heat and utilities	2,000	2,000	2,000
Total operating costs	2,565	2,940	3,440
TOTAL ANNUAL COSTS	3,990	5,790	8,190
TOTAL ANNUAL COSTS/ROOM	1,330	1,930	2,730
BREAK-EVEN MONTHLY RENTS/ROOM	110	160	230

The break-even monthly rents per room would be $110, $160, and $230 respectively for acquisition costs of $15,000, $30,000, and $50,000. In order, therefore, for a tenant in a three bedroom, owner-occupied dwelling to pay for his/her equal share of the total costs of the dwelling, his/her monthly payments would have to be $110, $160, or $230 depending upon the purchase price of the dwelling.

In Manitouwadge, all three categories of acquisition costs are realistic and, therefore, significant numbers of Model 1 forms of intensification for all three break-even rent levels are potentially possible. Furthermore, the estimated break-even rental rates (especially for acquisition cost categories of $15,000 and $30,000) appear to be competitive. Tenant survey data indicates that the average monthly rent paid by single-member tenant households is $230 All of those tenants surveyed live in either bachelor units or one or two bedroom self-contained apartments in conventional apartment buildings. Although the amenities offered by self-contained apartments are greater than single rooms (e.g. private kitchen and bathroom, etc.), so too are monthly rents. According to our calculations of Model 1 break-even rents and survey data, the majority of current single-member tenant households in Manitouwadge would reduce their present monthly rental payment by at least 50% living in Model 1 accommodation consistent with acquisition costs of $15,000. Model 1 accommodation consistent with acquisition costs of $30,000 would also represent lower rental rates for the majority of current Manitouwadge single-member households, although only by approximately 30% on average.

6.5.2 Model 2

The following analysis is based on the conversion of 750 square feet of below-grade floor area into a self-contained apartment of 500 square feet. Table 6.5.B details the costs associated with the three acquisition cost categories:

Table 6.5.B Model 2 By Owner-Occupied, Single-Detached Dwelling with 750 Square Feet of Below-Grade Floor Area

OPERATION COSTS			
1. Acquisition costs	$15,000	30,000	50,000
2. Alteration costs	12,500	12,500	12,500
3. Soft costs at 15% of Alt. costs	1,875	1,875	1,875
Total creation costs	29,375	44,375	64,375
Equity position (25% of creation costs)	7,345	11,095	16,095
Remaining costs to finance	22,030	33,280	48,280
FINANCING COSTS			
1. Return on equity (8%)	588	888	1,288
2. Remaining costs at 10%	2,203	3,328	4,828
Total financing costs	2,791	4,216	6,116
OPERATING COSTS			
1. Taxes	588	888	1,288
2. Insurance	147	222	322
3. Maintenance/upkeep	188	188	188
4. Heat and utilities	2,000	2,000	2,000
Total operating costs	2,923	3,298	3,798
TOTAL ANNUAL COSTS	5,714	7,514	9,914
TOTAL ANNUAL COSTS FOR APT AT 40% OF TOTAL ANNUAL COSTS	2,286	3,005	3,966
BREAK-EVEN MONTHLY RENT	190	250	330

The break-even monthly rent per self-contained apartment would be $190, $250, and $330 respectively for total creation costs of approximately $29,400, $44,400 and $64,400. This is based on a cost of approximately $14,400 (alteration and soft costs) for the construction of the hypothetical 500 square foot, one bedroom, below-grade apartment.

For Noranda employees, these rental rates are uncompetitive. Noranda (Geco) employees can rent employer-subsidized three bedroom single-detached dwellings for approximately $200 per month according to survey data. For other tenants in conventional apartment buildings residing in one bedroom apartments, these break-even rents are more competitive. The average monthly rent for bachelor units and one bedroom apartments is $232. Model 2 conversions in single-detached dwellings purchased for $15,000 or $30,000 (the bulk of Manitouwadge's housing stock) can provide one bedroom apartments at a break-even monthly rent of $190 and $250 respectively. Model 2 conversions in $50,000 dwellings appear not to be economically feasible, however.

6.6 MUNICIPAL RESIDENTIAL BYLAWS

Manitouwadge has flexible bylaws that are quite accomodating to intensification. The only changes that should be made to this by-law in order to remove any possible impediments to conversion would be to change the maximum lot coverage required.

6.6.1. Model 1

Sect. 2.41 FAMILY, shall mean an individual, or two (2) or more persons who are related by bloof or marriage or legal adoption, or a group of not more than five (5) unrelated persons, inclusive or servants, occupying a dwelling unit and may include not more than two (2) persons who receive their lodgings, board or both for compensation.

Because of this non-restrictive definition of family according to the zoning by-law of Manitouwadge, the only restriction on Model 1 is that no more than two people are allowed to pay for their room and board in any one dwelling unit.

6.6.2 Models 2 and 3

The potential for this type of conversion is very good. According to Section 5.2, uses for the residential zone "R1" include:

> "one single-detached dwelling, one two-family dwelling, one duplex dwelling, one semi-detached dwelling or one twin-wide or double wide modular home on one lot."

This enhances Models 2 and 3 intensification potential in a large area of Manitouwadge because residential zone "R1" encompasses the majority of the residential area available in Manitouwadge. However, Section 5.5 includes a restriction on maximum lot coverage which would impede conversion under Model 3. No more than 40% is allowed to be covered on any one lot under this zone.

6.6.3 Model 4

The potential for infill within this model exists for the major residential zone "R1" and for the smaller residential zone "R2" but not for the mobile home residential zone "R3". According to Section 7.2.A, zone "R3" allows for only one mobile home or one modular dwelling on one lot.

However, in Zone "R1" and "R2", requirements also exist which would restrict this type of development. According to Section 5.5, only 40% maximum lot coverage is allowed in zone "R1". Zone "R2" has a more generous maximum lot coverage requirement at 50% but this could still prove to be restrictive for Model 4.

6.6.4 Model 5

The potential exists in residential zone "R2" for development along the lines of Model 5. Again, however, restrictions based on the maximum lot coverage exist which could prove an impediment for this type of conversion. Section 6.5 allows for only 50% maximum coverage. Regardless of this, the area covered by residential zone "R2" is not large.

6.6.5 Discussion

Manitouwadge has few restrictions on intensification-related activities because of it's broad definitions and uses allowed within it's residential zones. The non-restrictive definition of "family" allows for the simplest type of conversion (ie. having a roomer). The major residential zone allows for a broad range of uses which makes it very accommodating to Models 2 and 3. As well, in the residential zones, there are no restrictions on the number of buildings allowed on one lot (excepting mobile homes). The only restrictive measure for conversion is the maximum lot coverage requirements. Under Manitouwadge's zoning by-law, conversion Models 1 and 2 have very good potential, Model 3 is restricted by maximum lot coverage requirements, Models 4 and 5 have potential (except in the mobile home zone) but are as well restricted by the maximum lot coverage requirement.

Therefore, the major models of conversion (1 and 2) are virtually unrestricted in Manitouwadge. To allow for greater flexibility in the other models there would have to be less restrictions placed on maximum lot coverage.

6.7 SUMMARY OF FINDINGS

The possibility of residential intensification in Manitouwadge is limited to about one-third of the existing single-detached housing stock. Due to a 50% rental rate amongst pre-Hemlo single-detached housing stock and extensive mortgage-related restrictions on conversions for Hemlo-related single-detached housing stock, only a relatively small percentage of the existing inventory of houses have the tenure characteristics which potentially allow intensification. Even so, the physical potential of pre-Hemlo, owner-occupied, single-detached dwellings could provide for a maximum of approximately 500 additional occupants through applications of Model 1 and, in particular, Model 2.

Due to the relatively small dimensions of pre-Hemlo houses, Model 2 apartments are in almost all cases limited to accommodating two or less persons. As a result, almost three-quarters of new Hemlo households presently residing in single-detached homes in the new Hemlo housing development would have been too large to suit the potential available living space offered by the physical potential of pre-Hemlo houses. The construction of the new Hemlo-related apartment complex, with a total of 32 bachelor and one and two bedroom units, could in all liklihood have been avoided had the physical potential of the existing houses been utilized.

The physical potential of Model 1 is limited to less than 20 additional occupants for both pre-Hemlo and Hemlo housing. This weak potential indicates that the above-grade living space of owner-occupied, single-detached dwellings is utilized extremely close to its maximum. The potential of Model 3, 4 and 5 is virtually non-existant given the absence of backlanes and infill opportunitites in Manitouwadge.

Residential intensification viewed strictly from an economic perspective appears to be economically feasible according to a limited number of situations. According to the assumptions applied, Model 1 forms of intensification are economically viable for single-detached dwellings with three or more bedrooms purchased for between $15,000 and $30,000. Such accommodation would require monthly rental payments of a minimum of approximately $110 and $160 per room respectively. At these rates, Model 1 rental accommodation can be seen to be fairly competitive in a rental market where the average single-member household pays $230 per month for bachelor or one bedroom units in conventional apartment buildings.

Model 2 forms of intensification appear to be economically viable for single-detached dwellings which can provide 500 square foot one bedroom self-contained below-grade apartments for total creation costs of less than $45,000 per dwelling. For converted dwellings with total creation costs of approximately $30,000, the basement rental unit requires a break-even rent of approximately $190 per month. For converted dwellings with total creation costs of approximately $45,000, the rental unit requires a break-even rent of approximately $250 per month. At these rates, Model 2 rental accommodation can be seen to be fairly competititve in a rental market where bachelor and one bedroom self-contained units in conventional apartment buildings rent for an average $232 per month.

Municipal residential by-laws in Manitouwadge are generally favourable towards conversion types of residential intensification. In residential zones, single-family dwellings may legally convert to multiple-family dwellings conditional upon the requirement that only one main dwelling structure per lot is constructed. Infill forms of residential intensification are impeded by restrictions on the number of dwelling structures that may legally be constructed on one lot in residential zones, and by minimum landscaped area requirements in multiple-family zones (e.g., apartment complexes).

Another factor which appears to favour residential intensification in Manitouwadge is the fact that homeowners express little resistance to the hypothetical possibility of increasing rates of single-family dwelling conversions in their immediate neighbourhoods. However, as was the case in the Marathon study, inter-questionnaire response inconsistencies imply the need for cautious application of this finding and call for further study with the appropriate adjustments to methodology.

Two factors reduce the probability of the observed physical potential of Manitouwadge's existing housing stock being utilized to any significant degree. The attitudes of present homeowners towards renting out space to unrelated tenants is perhaps the most critical of these factors. Manitouwadge homeowners are overwhelmingly disinterested in becoming landlords. Of those surveyed, only 3% would consider renting out part of their house. One possible explanation for this lack of interest is lack of financial incentive. Manitouwadge homeowners incur relatively low housing costs due to the generous subsidization assistance provided by the community's main employer. Approximately half of all pre-Hemlo homeowners live mortgage-free while the remaining half make relatively low monthly mortgage payments of $348 on average. Not one homeowner surveyed reports any difficulty in meeting monthly mortgage payments.

Another factor which diminishes the feasibility of residential intensification in Manitouwadge is the presence of a relatively small potential demand group. When the household characteristics and housing preferences of current tenants are considered, it is estimated that only approximately 80 households match the necessary requirements imposed on potential tenants by the physical characteristics of the potential stock of intensification-related rental units. With a physical potential of providing accommodation for an additional 500 persons, it can be seen that the intensification potential of pre-Hemlo owner-occupied housing stock would be significantly under-utilized by existing potential demand. Potential demand, when significantly outweighed by potential supply, may not provide the necessary impetus to potential landlords to decide to convert. It is not unreasonable to assume that if homeowners perceive a weak demand for intensification-related rental units, while at the same time perceiving there to be a potentially large supply of such units, they may be reluctant to invest in conversion in fear of failing to capitalize in a rental market swamped with rental units.

SECTION 7.0

RECOMMENDATIONS

The most critical factor in the supply of intensification-related rental housing is the physical potential of the existing housing stock and patterns of land use. If the size, form and current utilization rates and patterns of existing stock and land do not provide significant opportunitites for the accommodation of additional occupants, then residential intensification is simply not an option. State-sponsored incentive programs can have no effect on homeowners with surplus living space or tenants in search of living space because no such living space exists. In such a situation, expanding populations will have to be accommodated in new housing developments and municipalities will have to establish the necessary infrastructure.

Other factors important to the feasibility of residential intensification may not be so totally uneffected by state persuasion. If necessary, attitudes of homeowners and tenants, the economics of conversion and infill, and the structure of residential by-laws can all potentially be altered in favour of intensification. Incentives such as low-interest or no-interest loans, grants, and/or tax breaks may encourage unwilling homeowners and reluctant tenants to consider more seriously the benefits of intensification-related housing. Conversely, Municipalities faced with disincentives such as reduced provinicial assistance relating to the various costs of servicing new housing developments may likewise be encouraged to consider the benefits of meeting the demands of increasing population through intensification-related development.

In the case of Marathon and Manitouwadge, residential intensification is definitely an option on the basis of physical potential. Considerable surplus living space exists in each community, in particular for the purposes of creating below-grade, self-contained apartments for unrelated tenants. In Marathon, there is also considerable surplus living space potentially available for the purposes of renting out single rooms, and rather modest surplus serviced land available to horizontal additions and infill projects. The critical physical requirement of residential intensification is, therefore, present in each community.

It has already been suggested that State programs can do little today to increase the physical potential of an existing housing stock that was constructed yesterday. Current dwelling forms and sizes, and lot dimensions which limit additions and infill opportunitites are based on decisions made years ago. Had these earlier decisions anticipated the benefits of intensification, dwelling sizes, forms and lot dimensions could possibly have been established to facilitate future conversions and infill. For example, in Marathon there exists approximately 250 dwellings constructed around 30-40 years ago with basements which have ceilings too low for comfortable human habitation and a lack of window space to allow sufficient natural lighting. For relatively little added costs, these basements could have been deepened by about 15%-20% and provisions could have been made for larger windows. Today these basements would have had the potential of being converted to bachelor or one-bedroom self-contained apartments, and as such could have contributed significantly to the potential for residential intensification in Marathon.

1. It is recommended, in recognition of the dramatic fluctuations in housing demand that often effect single-industry/resource-based communitites, that government initiate research which examines various dwelling structure types for their ease and cost effectiveness of conversion.

2. It is recommended that government consider ways in which the Municipalities and developers of single-industry/resource-based communities can be encouraged to create new housing developments composed of dwelling structures which are characterized by their ease and cost effectiveness of conversion.

The economic factors of conversion are generally favourable towards residential intensification in both communities. This finding is based on the application of the investors' model and break-even rents. Given that the greatest amount of intensification activity is likely to be undertaken by homeowners, and not private contractors, developers and investors, this method may be overly-pragmatic and rational, and may, in fact, understate the economic feasibility of conversion. That is, many homeowners may be willing to accept considerably less rent than the break-even rents of the investors' model dictate, and therefore be able to provide the rental market with dwelling units at even more competitive rates than those based on the break-even point.

Perhaps the most common means by which homeowners could supply rental accommodation at rates lower than the estimated break-even levels is through lowering their total creation costs. This could be done primarily by reducing the construction/alteration costs and the soft costs of creating self-contained apartments. The homeowner could possibly undertake part or all of the labour involved in the conversion. He or she could innovate ways of cutting the cost of materials (e.g., the purchase of used rather than new kitchen appliances, bathroom fixtures, floor coverings, etc.) The homeowner might also undertake the architechural design duties, thereby reducing substantially the total soft costs of creation.

The government could provide a number of incentives to encourage and assist homeowners in their intensification projects. It is of critical importance that these incentives are available to homeowners at the time which demand occurs, otherwise the demand, unmet by tardy intensification development, may induce new housing development. The effectiveness of residential intensification in offsetting the need for new housing, especially in communitites which are experiencing rapid population expansion, is ultimately dependent on the speed at which the rental accommodation can be brought onto the market. Therefore, government programs aimed at assisting homeowners convert their dwellings must either be continously in place in all relevant communitites, or ready to be set in place "at a moment's notice".

3. It is recommended that government examine ways in which to assist homeowners in single-industry/resource-based communities in minimizing the economic creation costs associated with conversion.

4. It is recommended that government, in examining ways in which to assist homeowners in single-industry/ resource-based communities in minimizing the economic creation costs associated with conversion, consider the following incentives: capital grants to be applied against the cost of approved renovation materials and/ or labour; low interest or interest-free loans to be applied against the cost of approved renovation materials and/or labour; tax deductions to be applied against rental income; the provision of educational materials and consultative services relating to "do-it-yourself" conversions; and the provision of up-to-date information relating to vacancy rate by type of rental accommodation, rental rate by type of rental accommodation, and other market-related information which could potentially assist conversion decisions.

5. It is recommended that government be prepared to quickly implement programs of assistance to homeowners in single-industry/resource-based communities for the purposes of encouraging rapid residential intensification, and that such preparations should include the following considerations: the legality of residential intensifications; the level of potential resistance by affected neighbourhoods; the physical potential of the existing stock of dwellings and serviced land; and an estimate of the nature and extent of rental unit demand based on short and long-term projections for population growth and household characteristics of new residents.

According to the data collected and analyzed in the present study, residents of both Marathon and Manitouwadge have little objection to residential intensification taking place in their immediate neighbourhoods. The researchers, however, are not totally confident with this finding due to the existence of frequent response inconsistencies internal to a large majority of complete questionnaires. Neighbourhood acceptance of residential intensification is critical to its feasibility. In communitites where by-laws have to be amended in order to allow homeowners to convert their dwellings from single-family to multiple-family status (e.g. Marathon), the typical procedure is to invite public input through hearings. Strong neighbourhood opposition could militate against zoning changes and subsequently the success of residential intensification. Futhermore, even in communities where the provisions of existing residential by-laws do not require amendments in order to legalize conversion and infill (e.g., Manitouwadge), neighbourhood approval is still to be valued. The pride that homeowners take in their dwellings, landscaping and general neighbourhood upkeep is critical to the pride of the whole community. Homeowners forced to suffer types of neighbourhood developments that they oppose may very well become resentful and apathetic. In fear of perceived inevitable changes consistent with the negative stereotype of residential intensification (e.g., increased noise levels, parking problems, vandalism, and decreased privacy, landscaping and property values), homeowners may, in resignation, actually become responsible for bringing about the erosion of neighbourhood aesthetics themselves. It is of critical importance, therefore, that residential intensification be allowed to take place only with general neighbourhood approval.

6. It is recommended that government establish a valid and reliable method of measuring neighbourhood resistance to residential intensification in single-industry/resource-based communities, and that it endorse residential intensification in only those neighbourhoods for which general approval has been demonstrated.

7. It is recommended that government, in measuring neighbourhood resistance prior to possible residential intensification, also identify the problems of residential intensification most frequently perceived by neighbourhood homeowners (e.g., parking problems), and act to ensure that such problems do not arise should intensification take place (e.g., prohibit on-street parking).

8. It is recommended that government study ways in which to encourage homeowners in single-industry/resource-based communitites to approve of neighbourhood residential intensification; ways which could include education programs and public hearings designed to assure homeowners that the problems often associated with residential intensification will be carefully identified and effectively circumvented.

In Marathon, the existing residential by-laws effectively prohibit all Models of residential intensification examined in the present study. In Manitouwadge, on the other hand, the residential by-laws are extremely favourable towards residential intensification, in particular in cases of conversion. It is to be expected that the nature of residential by-laws vis-a-vis intensification development will vary significantly between single-industry communities just as it does between Marathon and Manitouwadge. It is also to be expected that residential by-laws which prohibit intensification-related development will only be amended to legalize intensification after a lengthy process, if they are amended at all. Because the feasibility of residential intensification in offsetting the need for new housing in rapidly expanding communitites depends on prompt and decisive action on the part of all parties involved, residential by-laws favourable to all forms of intensification-related development must be in place during the earliest stages of expansion. Single-industry communities should, therefore, be encouraged to review their present by-law structures and examine them for ways in which they might be amended to facilitate residential intensification during periods of increasing housing demand.

9. It is recommended that government alert Municipal councils of single-industry/resource-based communities to the advantages and strategies of residential intensification.

10. It is recommended that government encourage and assist Municipalities of single-industry/resource-based communities to amend, where necessary, existing residential by-laws to facilitate rapid residential intensification in preparation for possible rapid increases in housing demand.

Residential intensification typically provides rental accommodation of rather limited capacity; in particular, conversion forms of intensification. In Manitouwadge, the potential for residential intensification is virtually limited to below-grade bachelor and/or one-bedroom self-contained apartments. In Marathon, while the range of intensification possiblities is somewhat broader than in Manitouwadge, the bulk of these possiblities occur below grade in relatively small, self-contained apartments or above grade in single rooms with shared facilities. Clearly, such dwelling arrangements are not suitable to every household in search of a home, especially young married households with dependent children. And as the present study has shown, a considerable proportion of new Hemlo households is just that: young and married with dependent children, and largely unsuited to the forms of intensification-related housing potentially available in each community.

Physical potential of existing housing stocks vary between communities as a comparison between Marathon and Manitouwadge reveals. Other single-industry communities may have established housing stock and land of sizes, forms and rates of utilization which might very well be physically capable of housing large numbers of young families. It is important, therefore, that the household characteristics of the potential demand group and the physical potential of the existing stock of dwellings and serviced land be estimated prior to the time when increasing pressures on the housing supply induces a housing crisis and hasty decisions to undertake new housing and land development.

11. It is recommended that government encourage and assist Municipalities of single-industry/resource-based communities to be prepared to implement a study of the physical potential of its established inventory of owner-occupied, single-detached, grade-related dwellings and serviced land, and to prepare an estimate of the magnitude and household characteristics of the potential tenant/demand group in the event of a rapid increase in population growth and housing demand; and to estimate the extent to which the existing housing stock could potentially accommodate the new households through the various forms of intensification so as to serve as an alternative, or partial alternative, to new housing and land development.

In rapidly expanding single-industry communities, there is always the danger of a serious housing crisis in the early stages of expansion when large numbers of temporary workers flood the community during the construction phase. Housing demand quickly out-strips supply leading to escalating rental rates and a proliferation of make-shift dwellings. In Marathon and Manitouwadge, the housing crisis that accompanied the Hemlo construction phase had several negative effects on the communities, the most significant perhaps being the way in which the negative vacancy rate and the high housing costs discouraged the establishment of small and medium-sized business enterprises (Stafford et. al, 1986).

The temporary labour force in the construction phase of single-industry communities is typically young and single. These characteristics are perfectly suited to conversion forms of intensification which are relatively small, which can be brought onto the rental market quickly, and which can be withdrawn from the market with little impact when the transient labour stage subsides. Rooms rented out in owner-occupied dwellings and self-contained basement apartments suit this need particularily well.

12. It is recommended that government assist Municipal administrations of single-industry/resource-based communities with information related to the house-

hold characteristics of the potential tenant/demand group typical of the early stages of expansion so as to prepare the community to effectively accommodate the temporary labour force and to help avoid a housing shortage crisis.

13. It is recommended that government be fully prepared to quickly implement incentive programs to induce residential intensification in the very early stages of expansion in single-industry/resource-based communities.

The present study concludes that the most critical impediment to residential intensification in both Manitouwadge and Marathon is the overwhelming lack of willingness on behalf of homeowners to convert their dwellings and rent-out to unrelated individuals. Most homeowners are discouraged by fears that they will lose their privacy by renting-out. Many others feel that their present dwellings are too small. All of them appear not to need the extra income that renting-out would generate. In order for residential intensification to become a reality in Marathon and Manitouwadge, or any other single-industry community, homeowners must be encouraged with incentives potent enough to compensate them for living with added inconvenience. The types of incentives offered need not only be financial ones, but it is our opinion that financial incentives are likely to be most effective and their results most predictable.

The most significant advantage of residential intensification is that it provides housing at a fraction of the cost of new housing. This cost saving is effected not only in the short-run when expensive land development is avoided, but also in the long-run when the community eventually downsizes and community residents and provincial taxpayers alike must take up the "tax slack" left by vacant housing. The cost savings of intensification could likely finance its own incentive programs with funds left over.

14. It is recommended that government initiate a study to examine the comparative costs of new housing development versus residential intensification in expanding single-industry/resource-based communities.

It is only after the cost savings of residential intensification are known that policy makers can establish financial incentive programs aimed at encouraging homeowners to undertake conversion and infill projects. Policy makers would also benefit from information relating to the physical potential of the existing housing stock in the target community, and the household characteristics of the potential demand group so as to design and implement the homeowner incentive programs to encourage those types of residential intensification that are most appropriate.

15. It is recommended that government turn back all or part of the cost savings of residential intensification into financial incentive programs designed to encourage owner-occupants of single-detached, grade-related dwellings to undertake conversion and/or infill projects relating to their dwellings; and that these incentive programs be geared to the most appropriate models of residential intensification given the sizes, forms and rates/patterns of utilization of existing housing stock and serviced land, and the estimated household characteristics of the potential demand group for intensification-related accommodation.

The final word concerns the role that government must attempt to establish in regulating the activities of the major resource companies. Typically, the resource companies exert almost total control over the nature of housing markets in single-industry/resource-based communities. This has certainly been the case in Marathon and Manitouwadge historically, as it continues to be the case today. Teck-Corona, Lac Minerals and Noranda (Hemlo) were allowed unobstructed privilege in the decision to create hundreds of new housing units in Marathon and Manitouwadge just as 30 to 40 years ago Marathon Pulp and Paper Co. and Noranda (Geco) were given similar privilege. The difference is today we are painfully more aware of the vulnerability of the major resource companies and the tendency they have of pulling up stakes and leaving behind ghost towns filled with empty houses. And yet given this awareness, we still allow resource companies to dictate housing policy in small hinterland communities.

16. It is recommended that government adopt a more active role in the regulation of the amount and type of housing supply created in single-industry/resource-based communities in an effort to minimize the adjustment difficulties to be encountered during future periods of industrial downsizing and shutdowns.

Single-industry communitites demand housing policies specific to the exigencies of boom and bust. Policy makers must examine new and innovative ways of providing accommodation for transient and short-term labour forces. These new forms of accommodation should possess a type of flexibility which would allow efficient housing for a variety of household types in a variety of life stages. They should lend themselves to both easy expansion of living space and easy reduction of living space. The fundamental design should always provide for as many future options as possible.

17. It is recommended that government examine alternative forms of accommodation for single-industry/resource-

based communities which offer a greater range of flexibility than conventional housing to suit a variety of household types.

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Appendix A

OWNER QUESTIONNAIRE

FOR EACH COMPLETED INTERVIEW, RECORD: TELEPHONE NUMBER ____________________

1-3

Q. 1 (a) Do you live in a...

READ

(a) detached unit,	1	
(b) semi-detached unit, or	2	
(c) row house (3 or more)	3	
(d) refuse, no answer	9	4

(b) Is it a...

READ

(a) bungalow/one storey,	1	
(b) split level (side or back),	2	
(c) storey and half,	3	
(d) two storeys,	4	
(e) two and one half or three storeys	5	
(f) refuse, no answer	9	5

Q.2 (a) Approximately how old is your house?
(PROBE FOR ESTIMATE. IF STILL DON'T KNOW, ASK IF BEFORE OR AFTER WW II)

YEARS ☐☐

Before WW II	1	
After WW II	2	
Don't know	9	8

(b) How long have you owned your house? RECORD YEARS TO NEAREST FULL YEAR

YEARS ☐☐
9 10

(c) How many homes have you owned before buying this one?

HOMES ☐
11

Q.3 (a) How many motor vehicles do you have in your household?

Vehicles		12

(b) How many vehicles can you park on your lot?

Vehicles		13

(c) Can you park a car on the street in front of your home? (PROBE FOR SPECIFICS.)

Yes, unrestricted	1	14
Yes, permit	1	15
Yes, metered	1	16
Yes, restricted hours with a sign	1	17
Yes, restricted hours without a sign	1	18
Yes, other (SPECIFY) ____________	1	19
No	2	
Don't know, no answer	9	20

Q.4 Do you have a lane in the back of your house?

Yes	1	
No	2	21

2

Q.5 (a) Are the houses on your street pretty much the same as yours or are they different?

Yes, same	1	
No, different	2	22

(b) IF DIFFERENT, ASK:

How are they different? (THE OTHERS ARE:)

DO
NOT
READ

Attached	1	
Not Attached	2	
Both, attached and not attached	3	23

Older	1	
Newer	2	
Both, older and newer	3	24

Bigger	1	
Smaller	2	
Both, bigger and smaller	3	25

Other (SPECIFY) ________	1	26

Q.6 (a) Could you please tell me about the arrangement of the rooms in your house? Let's start with your basement: what rooms do you have in your basement? How about your first floor... your second floor...your third floor?

PROBE

CIRCLE ALL THAT APPLY	Basement		First Floor		Second Floor		Third Floor	
Do not have a basement	1	27						
Kitchen	1	28	1	36	1	44	1	52
Full bathroom (sink, toilet, tub/shower)	1	29	1	37	1	45	1	53
Half bathroom (sink, toilet)	1	30	1	38	1	46	1	54
Living room	1	31	1	39	1	47	1	55
Dining room	1	32	1	40	1	48	1	56
Den/recreation/ family room	1	33	1	41	1	49	1	57
No. of bedrooms	☐	34	☐	42	☐	50	☐	58
No. of other rooms	☐	35	☐	43	☐	51	☐	59

(b) Are there any of these rooms you hardly ever use?

Yes	1	
No	2	60

IF YES, Which ones? Let's start with your basement. Now the first floor...the second floor... the third floor. (ASK ONLY WHAT IS APPLICABLE)

PROBE

	Basement		First Floor		Second Floor		Third Floor	
Kitchen	1	61	1	69	1	77	1	85
Full bathroom (sink, toilet, tub/shower)	1	62	1	70	1	78	1	86
Half bathroom (sink, toilet)	1	63	1	71	1	79	1	87
Living room	1	64	1	72	1	80	1	88
Dining room	1	65	1	73	1	81	1	89
Den/recreation/ family room	1	66	1	74	1	82	1	90
No. of bedrooms	☐	67	☐	75	☐	83	☐	91
No. of other rooms	☐	68	☐	76	☐	84	☐	92

3

Q.7(a) Have you increased the living space of your house by finishing off your attic, basement, or other unfinished space?

CIRCLE ALL THAT APPLY

PROBE

Attic	1	93
Basement	1	94
Other (SPECIFY) ____________	1	95

(b) Have you added any rooms to the exterior of your house since you bought it?

Yes	1	
No	2	96

(c) IF YES, ASK: What exactly did you do? ____________

____

97 98

99 100

Q.8 One of the things we're interested in looking at is the renting out of rooms or apartments in existing houses. Do you know if this has been occurring at all in your neighbourhood?

Yes	1	
No	2	
Don't know	9	101

Q.9 (a) Would you ever consider renting out a room in your house or taking in a roomer?

(b)	Yes	1	
(c)	No	2	
(d)	Maybe/depends	3	
(d)	Don't know	9	102

(b) IF YES, ASK:
Why would you do this?

____

____

GO TO Q.10

103 104

105 106

(c) IF NO, ASK: Why wouldn't you consider this?

____

____

GO TO Q.13

107 108

109 110

(d) IF MAYBE/DEPENDS, DON'T KNOW, ASK: What would make you consider doing this?

____

____

GO TO Q.10

111 112

113 114

Q.10 (a) If you were to take in roomers, how many rooms do you think you would likely rent out?
(IF DON'T KNOW, CODE 9)

ROOMS ☐ 115

(b) Would there be parking available for a roomer?

Yes	1	
No	2	
Don't know	9	116

(c) IF YES, ASK: Where would the parking be located?

CIRCLE ALL THAT APPLY.

Driveway	1	117
Front yard	1	118
Back yard	1	119
Street	1	120
Garage	1	121
Other ____________	1	122

Q.11 (a) If you were to take in one or more roomers, what kind of people would you want to rent to? Would you consider renting a room to...

CIRCLE

	Yes	No	D.K., Not Sure	
(a) a younger male	1	2	9	123
(b) a younger female	1	2	9	124
(c) an older male	1	2	9	125
(d) an older female	1	2	9	126

(b) What would be most important to you about a person in deciding whether or not to rent out a room to them?

____

______________________________ 127 128

Q.12 Approximately how much rent do you think you could get for a room in your house?

$/mon. ☐☐☐ .00 129 130 131

Q.13 (a) Would you ever consider creating a private, self-contained apartment with its own kitchen and bathroom in part of your house and renting it out?

(b)→	Yes	1
(c)←	No	2
(d)	Maybe/depends	3
	Don't know	9

132

(b) IF YES, ASK:
Why would you do this?

______________________________ 133 134

GO TO Q.14

(c) IF NO, ASK: Why wouldn't you consider this?

______________________________ 135 136

GO TO Q.25, p.7

(d) IF MAYBE/DEPENDS, DON'T KNOW, ASK: What would make you consider doing this?

____

______________________________ 137 138

GO TO Q.14

Q.14 What difficulties do you think you might run into in in creating a private, self-contained apartment in your house?

______________________________ 139 140

______________________________ 141 142

____

Q.15 If you were to create a private, self-contained apartment, in which part of your house would that be?

CIRCLE ALL THAT APPLY

Bsmt.	1	143
Main flr.	1	144
2nd flr.	1	145
3rd flr.	1	146
Not sure, don't know	1	147
Other (SPECIFY) ______________	1	148

Q.16 If you were to create a private, self-contained apartment, would you want to provide a separate, private entry?

Yes	1	
Yes, but not possible	2	
No	3	
Don't know	9	149

Q.17 (a) Would the tenants be allowed to use your backyard?

Yes	1	
Maybe/depends	2	
No	3	
Don't know	9	[illegible]

IF ANSWERED IN 10(b), P. 3, GO TO Q.18

(b) Would there be parking available for a tenant?

Yes	1	
No	2	
Don't know	9	151

(c) IF YES, ASK: Where would the parking be located?

CIRCLE ALL THAT APPLY

Driveway	1	152
Front yard	1	153
Back yard	1	154
Street	1	155
Garage	1	156
Other (SPECIFY) ________	1	157

Q.18 (a) As you can appreciate, creating a private, self-contained apartment in your house could involve some changes, such as putting in a kitchen, a bathroom, private entry or making an addition. Approximately, how much do you think it would cost you to create a private, self-contained apartment in your house? (IF D.K., CODE 99,000)

$ |__|__|,000.00
152 157

(b) Would you pay for these changes out of your savings, or would you have to borrow the money to do it?

(CIRCLE ONE ONLY)

PROBE

Savings	1	
Borrow	2	
Both	3	
Other (SPECIFY) ________	4	
Don't know	9	160

Q.19 (a) Would you hire someone to make these changes or would you do the work yourself?

Hire someone	1	
Do work self/ family/friends	2	
Both	3	
Don't know, depends	9	161

(b) IF HIRE SOMEONE, BOTH, ASK: How would you go about hiring someone?

____

____ |__|__|
162 163

Q.20 If you were to create a private, self-contained apartment, what kind of tenants would you want to rent to? Would you rent to . . .

	Yes	No	Not Sure, D.K.	
a younger male	1	2	9	164
a younger female	1	2	9	165
a single parent with a child	1	2	9	166
a young couple	1	2	9	167
two younger friends	1	2	9	168
a young couple with a small child	1	2	9	169
a couple with an older child	1	2	9	170
an older couple	1	2	9	171
an older single person	1	2	9	172

Q.21 What would be most important to you about a person in deciding whether or not to rent out an apartment to them?

173 174

Q.22 Approximately, how much monthly rent do you think you could get for an apartment in your house? IF DON'T KNOW, REFUSE, CODE 9999.

$/mon. ☐☐☐☐ .00

175 176 177 178

Q.23 If you wanted to create a self-contained apartment in your house, how could the government help you to do so?

179 180

181 182

Q.24 IF CONSIDER RENTING A ROOM (YES TO Q.9(a), p.3 AND IF CONSIDER CREATING AN APARTMENT (YES TO Q.13(a), p.4, ASK:

(a) In thinking about either renting out a room or creating a private, self-contained apartment in your house, which would you prefer to do?

Rent room	1	
Create an apartment	2	
Do both	3	
Don't know/ not sure	9	183

(b) Why do you say that?

184 185

Q.25 Now I'd like you to tell me if you agree or disagree with the following statements about your house:

	Agree	Disagree	D.K. N.A.	
(a) I have too much extra space in this house	1	2	9	186
(b) It is becoming very difficult for me to afford to live in this house	1	2	9	187
(c) Living in a house like mine can be lonely sometimes	1	2	9	188
(d) It is becoming very hard for me personally to take care of the upkeep and maintenance of this house	1	2	9	189
(e) It won't be too many years before I won't need a lot of the space I have in this house	1	2	9	190

IF DISAGREE IN ALL OF 25, GO TO Q.27

IF AGREE IN 1 OR MORE IN 25, ASK:

Q.26 (a) Do you think any of these problems will cause you to move in the near future?

Yes	1	
Maybe	2	
No	3	
Don't know/ not sure	9	191

GO TO Q.27 — No / Don't know/not sure

IF YES/MAYBE, ASK:

(b) Would having to move not bother you or would you rather stay in your present home?

Moving would not bother me	1	
Rather stay in present home	2	
Don't know, no answer	9	192

IF RATHER STAY, BUT WOULD NOT CONSIDER RENTING OUT A ROOM IN Q.9(a), p.3, ASK:

(c) Do you think you would consider renting out a room if it would help you to be able to stay in your home?

GO BACK TO Q. 9-12, p.3, AND THEN TO 26(d) — Yes

Yes	1	
No	2	193

IF RATHER STAY (in b), BUT WOULD NOT CONSIDER CREATING A PRIVATE, SELF-CONTAINED APARTMENT IN Q.13, p.4, ASK:

(d) Do you think you would consider creating a private, self-contained apartment you could rent out if it would help you to be able to stay in your home?

GO BACK TO Q. 14-24, p.4, AND THEN TO Q.27 — Yes

Yes	1	
No	2	
Depends	3	
Don't know	9	194

Q.27 I just have a few more questions. Could you tell me how many people, including yourself, live in this house? IF REFUSE, CODE 99.

PERSONS ☐☐
195 196

IF 2 OR MORE PEOPLE, ASK:

Q.28 (a) Do you have any dependent children living in your house?

Yes	1
No	2
Refuse	9

197

IF YES, ASK: (b) How many children live in your house?

CHILDREN ☐ 198

Q.29 (a) Do you have a mortgage on your house?

Yes	1
No	2
Refuse, D.K.	9

199

IF YES, ASK:

(b) Are you finding any difficulty in meeting monthly mortgage payments at the present time?

Yes	1
No	2
Refuse	9

200

(c) Approximately how much are your monthly carrying costs?
IF REFUSE, D.K., CODE 9999.

☐☐☐☐ .00
201 202 203 204

Q.30 What is the age of the head of your household?
(IF NO HEAD, ASK RESPONDENT'S AGE) (IF REFUSE, CODE 99)

Years ☐☐
205 206

Q.31 What is your marital status?

Single	1
Married	2
Other (Widowed, Divorced, Separated)	3
Refuse	9

207

Q.32(a) Was the total income before tax of all the members of your household over or under $30,000 last year?

Over $30,000	1
Under $30,000	2
Refused	9

208

IF OVER $30,000, ASK: Was it over $45,000?

Over $45,000	1
Under $45,000	2
Refused	9

209

IF UNDER $30,000, ASK: Was it over $15,000?

Over $15,000	1
Under $15,000	2
Refused	9

210

(b) Does this include income from more than one person?

Yes	1
No	2
Refuse	9

211

Q.33 NOTE SEX OF RESPONDENT

Male	1
Female	2

220

Thank you very much for your time. Those are all the questions I have. Do you have any comments you would like to make?

____

____

Could I please get your name in order that this interview can be verified by my supervisor?

____

INTERVIEWER NAME ____________________ INTERVIEWER NO. |__|__|

221 222

Appendix B

RENTER QUESTIONNAIRE

FOR EACH COMPLETED INTERVIEW, RECORD: TELEPHONE NUMBER ____________________

1-3

Q.1 How long have you been living at your present address? (RECORD YEARS, MONTHS IF LESS THAN ONE YEAR)

Years ☐☐ 4,5

Months ☐☐ 6,7

Q.2 (a) What kind of a building are you living in at the present time? Is it an...

(a) apartment building without an elevator	1
(b) apartment building with an elevator	2
(c) entire town, row or attached house	3
(d) apartment in town, row or attached house	4
(e) entire detached house	5
(f) apartment in detached house	6
(g) Other ____________________	7

8

IF APARTMENT IN TOWN, ROW, ATTACHED, OR DETACHED HOUSE (4 or 6 above), ASK:

(b) Does your landlord live in the same house as you?

Yes	1
No	2
No answer, refuse	9

9

Q.3 How many bedrooms are in your dwelling? RECORD

Bedrooms ____ 10

Combined bed/sitting-room, bachelor unit (CODE 1) ____ 11

Q.4 Do you share kitchen or bathroom facilities with other households?

Yes	1
No	2

12

Q.5 Did you rent before you moved here?

IF "NO," PROBE OWNERSHIP OR OTHER.

Yes, rented	1
No, owned	2
No, other	3

13

2

Q.6 (a) How satisfied are you with your present living accommodations? Would you say that you are:

GO TO (c)	Very Satisfied	1	
GO TO (c)	Somewhat Satisfied, Or	2	
ASK (b)	Dissatisfied	3	14

(b) IF DISSATISFIED, ASK: Why do you say that?

____ 15 16

____ 17 18

____

(c) Do you feel you have enough space in your present unit?

Yes	1	
No	2	19

(d) How many motor vehicles do you have in your household?

Vehicles		20

(e) Is parking available to your household (whether or not you use it)?

Yes	1	
No	2	21

(f) Is the rent more than you feel you can afford?

Yes	1	
No	2	22

(g) Would you rather be living in another area of the city?

Yes	1	
No	2	23

Q.7 Do you plan to move from this dwelling within the next year or so?

IF TOWN, ROW, ATTACHED OR DETACHED HOUSE,
i.e. IF NOT IN APARTMENT BUILDING, GO TO Q. 10

Yes	1	
No	2	
Don't know	9	24

(a) Have you ever rented a room, suite, or an apartment in a house?

Yes	1	
No	2	25

(b) IF "YES", ASK: Was this a private self-contained apartment with a bath and kitchen or just a room?

Self-contained	1	
Room(s)	2	26

Q.8 Have you ever rented an entire house, either by yourself or by sharing the rent with other individuals outside your immediate family?

Yes, by self	1	
Yes, with others	2	
No	3	27

Q.10 (a) Supposing for the moment that you are looking for a new place to rent. If you had a choice between equal sized apartments in a house or in an apartment building, both in an area you liked, which would you prefer to live in?

ROTATE

Prefer House	1	
Prefer Apartment Building	2	
Don't know, Depends	9	28

(b) Do you see any major advantages in renting an apartment in a house as opposed to renting in an apartment building?

Yes	1	
No	2	[illegible]

IF YES, ASK: What would those be?

CIRCLE ALL THAT APPLY

DO NOT READ

Have a yard	1	30
More home-like	1	31
More privacy	1	32
No elevator	1	33
More sociable environment	1	34
Other ____________	☐	35
____________	☐	36

(c) Do you see any major disadvantages of renting an apartment in a house as opposed to renting in an apartment building?

Yes	1	
No	2	37

IF YES, ASK: What would those be?

CIRCLE ALL THAT APPLY

DO NOT READ

Less privacy	1	39
Less maintenance	1	39
Landlord problems	1	40
More noise	1	41
More expensive	1	42
Other ____________	☐	43
____________	☐	44

Q.11 (i) In terms of your own preference for rental accommodation, which would be your first choice of the following four alternatives assuming rental costs and location were comparable?

(IF REFUSE 3 CHOICES, CODE 9 AT POINT OF REFUSAL)

READ AND REPEAT AS NECESSARY

	CHOICE	
1. an apartment in an apartment building		45
2. an apartment in an owner-occupied house		46
3. an apartment in a house that was totally changed into apartments		47
4. sharing the rent for an entire house with a number of friends		48

(ii) What would be your second choice? (READ ONLY REMAINING 3)

(iii) What would be your third choice? (READ ONLY REMAINING 2 AND RECORD LAST CHOICE AS "4")

4

Q.12 What I would like to do now is ask you about some characteristics or features that could be used to describe an apartment in a house. I will read out a characteristic, and I would like you to tell me if it would be very important, moderately important, or not at all important, if you were deciding whether or not to rent an apartment in a house.

	Very Important	Moderately Important	Not at all Important	Don't know, Refuse	
(a) How important would the location be, for example, if the house were located in the suburbs or more centrally?	1	2	3	9	49
(b) the size of the apartment; whether it's a 1 or 2 bedroom, for example?	1	2	3	9	50
(c) the monthly rental costs?	1	2	3	9	51
(d) whether or not parking were available?	1	2	3	9	52
(e) whether or not you have a private, separate entry?	1	2	3	9	53
(f) whether or not the apartment had its own private bathroom and kitchen?	1	2	3	9	54
(g) whether the apartment was located in the basement, on the main floor or on an upper floor?	1	2	3	9	55
(h) whether or not you could have access to the yard behind the house?	1	2	3	9	56
(i) whether the landlord lived in the house or lived elsewhere	1	2	3	9	57

Q.13 There are two main ways in which rental accommodation could be provided in a house. One could just rent a room in a house or one could rent a private, self-contained apartment in a house. Do you see any advantages to yourself of renting just a room in a house as opposed to renting an apartment in a house?

YES ☐ > What would these be? ______________________

____

58 59

NO ☐ > Why do you say that? ______________________

____

60 61

62 63

64 65

Q.14 Which of the following statements do you feel best describe your own situation with regard to renting:

(a) I am pleased about renting and will continue to rent	1
(b) I am unhappy about renting and anticipate purchasing my own home in the next three years	2
(c) I am unhappy about renting but must continue to rent	3

66

Q.15 (a) Do you want to buy a home within the next couple of years? (IF ASK, SAY 2-3 YEARS)

Yes	1
No → GO TO Q.16	2
Don't know	9

67

(b) Would you rather buy a home in the suburbs or a home in an older area of the city?

Suburbs	1
City	2
Don't know	9

68

(c) Would you rather buy a brand new home or an older home?

New	1
Old	2
Don't know	9

69

(d) Do you think you will be able to buy a home?

Yes → GO TO Q.16	1
No	2
Depends/Maybe	3
Don't know	9

70

(e) IF NO: Why not? IF DEPENDS/MAYBE, DON'T KNOW, ASK: What does it depend on?

____

____ 71 72

____ 73 74

(f) IF FINANCIAL PROBLEM GIVEN IN (e) (e.g. don't have enough for down payment, carrying cost-principal, interest, etc. are too high), ASK:

If doing any of the following would help you afford to buy a home within the next couple of years, would you consider...

	Yes	No		IF NO, Why not?	
(1) buying a house with a private, self-contained apartment which you could rent out	1	2	75	________	79 80 81 82
(2) buying a house and renting out a room	1	2	76	________	83 84 85 86
(3) buying a house and creating in it a private, self-contained apartment which you would rent out	1	2	77	________	87 88 89 90
(4) buying a house with another person or couple	1	2	78	________	91 92 93 94

GO TO Q.18

Q.16 (a) If you were to buy a house, would you ever consider renting out a room?

(b) IF DEPENDS, ASK: What would it depend on?

____

____

Yes	1
No	2
Depends	3
Don't know	9

95

96 97

Q.17 (a) If you were to buy a house, would you ever consider creating a private, self-contained apartment and renting it out?

(b) IF DEPENDS, ASK: What would it depend on?

____

____

Yes	1
No	2
Depends	3
Don't know	9

98

99 100

Q.18 If you could afford to buy a larger and more expensive house by renting out part of it, would you be more likely to consider doing this than buying a smaller, less expensive house?

Yes	1
No	2
Don't know	9

101

These last few questions are about you and others in your household. They are completely confidential.

Q.19 (a) How many people, including yourself, live in your household? (IF REFUSE, CODE 9)

Persons	

102

IF 2 OR MORE, ASK:

(b) Do you have any dependent children living with you?

Yes	1
No	2
Refuse	9

103

IF "YES", ASK:

(c) How many dependent children live with you? (WRITE IN) ____ 104

(IF REFUSE, CODE 9)

Q.20 What is the age of the head of your household? (IF NO HEAD, ASK RESPONDENT'S AGE)

Years ____ ____

105 106

Q.21 And what is your marital status?

DO

NOT

READ

Single	1
Married	2
Other (Widowed, divorced, separated)	3
Refuse	9

107

Q.22 (a) How much is the monthly rent for your present home? (IF REFUSE, CODE 9999).

DOLLARS: $ ________

108 109 110 111

(b) Are you paying the entire amount by yourself?

IF HUSBAND AND WIFE, CODE "Yes" - 1.

Yes	
No	2
Refuse	9

112

Q.23 (a) Was the total income before tax of all the members of your household over or under $30,000 last year?

Over $30,000	1	
Under $30,000	2	
Refuse, don't know	9	113

IF OVER $30,000, ASK: Was it over $45,000?

Over $45,000	1	
Under $45,000	2	
Refuse, don't know	9	114

IF UNDER $30,000, ASK: Was it over $15,000?

Over $15,000	1	
Under $15,000	2	
Refuse, don't know	9	115

(b) Does this include income from more than one person?

Yes	1	
No	2	
Refuse	9	116

Q.24 **DO NOT ASK:** Sex of respondent.

Male	1	
Female	2	125

Thank you very much. Those are all the questions I have. Do you have any comments you would like to make?

____

____

____

Could I please get your name in order that this interview can be verified by my supervisor?

NAME: ____________________________

INTERVIEWER NAME: ________________________ NUMBER ☐☐

126 127

Appendix C

(

ADDRESS
PHONE .
DATE

COMMUNITY ATTITUDE QUESTIONNAIRE

1-2

Q.1(a) First of all, could you tell me how long have you lived in your present home? RECORD YEARS, MONTHS IF LESS THAN ONE YEAR.

Years		
Months		

3 -

(b) IF 5 YEARS OR LESS:

Did you live in this part of town before you moved to your present home?

Yes	1
No	2

5

Q. 2 In the time you have lived in this area, would you say that the following types of changes have been very noticeable, somewhat noticeable or not at all noticeable?

READ AND REPEAT CATEGORIES AS NECESSARY

	VERY	SOMEWHAT	NOT	DON'T KNOW N/A	
1. new apartment buildings in the area	1	2	3	9	6
2. older houses being turned into apartments	1	2	3	9	7
3. older houses turning into rooming houses	1	2	3	9	8
4. houses being renovated or fixed up	1	2	3	9	9
5. houses changing from rooming houses or apartments to single family homes	1	2	3	9	10
6. houses becoming rundown	1	2	3	9	11
7. people of lower incomes moving in	1	2	3	9	12
8. people of higher incomes moving in	1	2	3	9	13
9. more children in the area	1	2	3	9	14
10. more elderly or seniors in the area	1	2	3	9	15
11. more people of different ethnic backgrounds moving into the area	1	2	3	9	16

Q. 3 (a) In general, would you say that the character of this area has changed a great deal, somewhat or not at all since you first moved here?

Great Deal	1
Somewhat	2
Not At All	3
No Answer, Refuse, DK	9

17

(b) IF GREAT DEAL OR SOMEWHAT: In your opinion has this change been for the better or for the worse?

Better	1
Worse	2
Neither/Both	3
Don't Know	9

18

(c) IF BETTER, WORSE OR BOTH, ASK: Why do you say that?

____

____

19 20

Q. 4 (a) Would you say that you socialize a great deal, somewhat or not at all with your neighbours?

Great Deal	1
Somewhat	2
Not at all	3
Refuse, No Answer	9

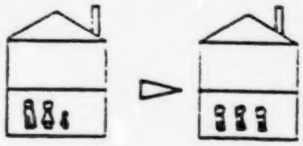
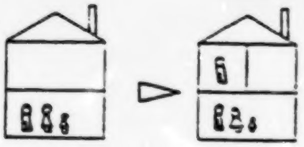
21

(b) Do you have any close friends amongst your neighbours?

Yes	1
No	2
Refuse, No Answer	9

22

What I'd now like to do is get your opinion on specific types of change that could occur in residential neighbourhoods such as yours.

TYPE	FROM ▷ TO	DESCRIPTION
T1		- a house previously occupied by one family is changed into a house which is shared by a number of people who are not related
T2		- a house previously occupied by one family is changed into a house which is still occupied by that family but also has a suite or apartment which can be rented out

Q. 5 (a) Have any of these types of changes been occurring in your neighbourhood?

Yes	1	
No	2	
Don't know	3	23

(b) IF YES ASK:

Which types of changes, in terms of these five types, have been occurring? (CIRCLE "1" FOR EACH MENTIONED)

Type 1	1	24
Type 2	1	25
Type 3	1	
Type 4	1	OMIT
Type 5	1	

(c) IF MORE THAN ONE MENTIONED ASK: CIRCLE ONLY ONE

Which type of change has been the most common in your neighbourhood?

Type 1	1	
Type 2	2	24
Type 3	3	
Type 4	4	
Type 5	5	OMIT
Don't know	9	

Q.6 Now what I'd like to do is ask you in some detail your views and opinions on the various types of change described

TYPE 1 + 2

Q.A. If changes as described occurred in your immediate neighbourhood, would you object to this or not?

☐ OBJECT > ASK: What would be the major reasons for your objection? (CHECK ALL MENTIONED AND PROBE.)

DO NOT READ

☐ home area less physically attractive > Why do you think this would happen? ____________ 30 31

☐ property values would decline > Why do you say that? ____________ 32 33

☐ different people moving in/more renters, etc. > What would concern you about these people? ____________ 34 35

☐ overcrowding > How would overcrowding affect people in this neighbourhood? ____________ 36 37

☐ more crime/vandalism > Why do you think this would happen? ____________ 38 39

☐ more parking problems > Why is that? ____________ 40 41

☐ other (SPECIFY) ____________ > Why do you say that? ____________ 42 43 44

☐ other (SPECIFY) ____________ > Why do you say that? ____________ 45 46 47

☐ DEPENDS > ASK. What would your reaction mainly depend on? (CHECK ALL MENTIONED AND PROBE.)

DO NOT READ

☐ type of people moving in > What type of people would you object to? ____________ 48 49

> What effect would these types of people have on your neighbourhood? ____________ 50 51

☐ how well homes kept up > What would you object to in terms of upkeep? ____________ 52 53

> What effect would this type of upkeep have on your neighbourhood? ____________ 54 55

☐ absentee landlords > What would you object to about absentee landlords? ____________ 56 57

> What effect would this have on your neighbourhood? ____________ 58 59

☐ extent to which this occurred > What extent would be objectionable? ____________ 60 61

> What effect would this have on your neighbourhood? ____________ 62 63

☐ how parking handled > What kinds of parking arrangements would be objectionable? ____________ 64 65

> What effect would this have on your neighbourhood? ____________ 66 67

☐ other (SPECIFY) ____________ > What aspects of this would be objectionable? ____________ 68 69 70

> What effect would this have on your neighbourhood? ____________ 71 72

☐ other (SPECIFY) ____________ > What aspects of this would be objectionable? ____________ 73 74 75

> What effect would this have on your neighbourhood? ____________ 76 77

☐ NO OBJECTION > GO TO Q.C 78

☐ DON'T KNOW > GO TO Q.C 79

IF OBJECT OR DEPENDS, ASK

Q.B If changes of TYPE 1 that were objectionable to you occurred in your immediate neighbourhood, what would you do? (CIRCLE ALL THAT APPLY)

DO NOT READ

sell home/move	1 80		organize neighbourhood resistance	1 84
take legal action	1 81		do nothing	1 85
call alderman, MPP, etc.	1 82		don't know	1 86
protest to city hall	1 83		other ____________	87 88

ALL RESPONDENTS

Q.C What would be the advantages of this type of change in your neighbourhood? (CIRCLE ALL THAT APPLY)

DO NOT READ

none/no advantages	1 89	newer houses	1 92
physically nicer/more attractive	1 90	more families/children	1 93
renovations	1 91	other ____________	94 /95

TYPE 1+2

Q.6 Now what I'd like to do is ask you in some detail your views and opinions on the various types of change described

Q.A. If changes as described occurred in your immediate neighbourhood, would you object to this or not?

☐ OBJECT > ASK: What would be the major reasons for your objection? (CHECK ALL MENTIONED AND PROBE.)

DO NOT READ

- ☐ make area less physically attractive > Why do you think this would happen? ______ 30 31
- ☐ property values would decline > Why do you say that? ______ 32 33
- ☐ different people moving in/more renters, etc. > What would concern you about these people? ______ 34 35
- ☐ overcrowding > How would overcrowding affect people in this neighbourhood? ______ 36 37
- ☐ more crime/vandalism > Why do you think this would happen? ______ 38 39
- ☐ more parking problems > Why is that? ______ 40 41
- ☐ other (SPECIFY) ______ > Why do you say that? ______ 42 43 44
- ☐ other (SPECIFY) ______ > Why do you say that? ______ 45 46 47

☐ DEPENDS > ASK. What would your reaction mainly depend on? (CHECK ALL MENTIONED AND PROBE.)

DO NOT READ

- ☐ type of people moving in > What type of people would you object to? ______ 48 49
  > What effect would these types of people have on your neighbourhood? ______ 50 51
- ☐ how well homes kept up > What would you object to in terms of upkeep? ______ 52 53
  > What effect would this type of upkeep have on your neighbourhood? ______ 54 55
- ☐ absentee landlords > What would you object to about absentee landlords? ______ 56 57
  > What effect would this have on your neighbourhood? ______ 58 59
- ☐ extent to which this occurred > What extent would be objectionable? ______ 60 61
  > What effect would this have on your neighbourhood? ______ 62 63
- ☐ how parking handled > What kinds of parking arrangements would be objectionable? ______ 64 65
  > What effect would this have on your neighbourhood? ______ 66 67
- ☐ other (SPECIFY) ______ > What aspects of this would be objectionable? ______ 68 69 70
  > What effect would this have on your neighbourhood? ______ 71 72
- ☐ other (SPECIFY) ______ > What aspects of this would be objectionable? ______ 73 74 75
  > What effect would this have on your neighbourhood? ______ 76 77

☐ NO OBJECTION > GO TO Q.C 78

☐ DON'T KNOW > GO TO Q.C 79

IF OBJECT OR DEPENDS, ASK:

Q.B If changes of TYPE I that were objectionable to you occurred in your immediate neighbourhood, what would you do? (CIRCLE ALL THAT APPLY)

DO NOT READ

sell home/move	1	80	organize neighbourhood resistance	1	84
take legal action	1	81	do nothing	1	85
call alderman, MPP, etc.	1	82	don't know	1	86
protest to city hall	1	83	other ______		87 88

ALL RESPONDENTS

Q.C What would be the advantages of this type of change in your neighbourhood? (CIRCLE ALL THAT APPLY)

DO NOT READ

none/no advantages	1	89	newer houses	1	92
physically nicer/ more attractive	1	90	more families/children	1	93
renovations	1	91	other ______		94 / 95

Q.7 If these changes were to occur in your neighbourhood, how would you rank them from first to last choice, with first choice being most preferred and fifth choice being least preferred?

(WRITE IN RANK - TRY TO AVOID TIES; IF REFUSE, CODE 9)

Type	Rank	
1	☐	96
2	☐	97
3	☐	omit.
4	☐	
5	☐	

Q.8 (a) In terms of new households moving into your neighbourhood, please rank your first, second and third preference.

(WRITE IN RANK - TRY TO AVOID TIES; IF REFUSE, CODE 9)

READ
AND
ROTATE

Young single persons		101
Young married couples		102
Seniors		103

(b) Would you prefer young couples with children or young couples without children moving into your neighbourhood? (ROTATE)

Prefer with kids	1	
Prefer without kids	2	
Don't know, depends	9	104

(c) Would you rather see higher income households, lower income households, or households with incomes similar to your own moving into your neighbourhood? (ROTATE)
(IF HIGHER AND SIMILAR INCOME, CODE HIGHER ONLY)

Prefer higher income	1	
Prefer lower income	2	
Prefer similar income	3	
Don't know, depends	9	105

(d) Would you prefer more owners or more renters living in your neighbourhood? (ROTATE)

Prefer more owners	1	
Prefer more renters	2	
Don't know, depends	9	106

(e) If more parking were needed in your neighbourhood, would you prefer on-street parking or off-street parking? (ROTATE)

Prefer off-street	1	
Prefer on-street	2	107
Don't know, depends	9	

assured that your responses will be kept strictly confidential and no attempt will be made to identify individual responses.

Q.10 (a) How many people, including yourself, live in your household?

IF REFUSE, CODE 99

RECORD

Persons		

108 109

(b) IF MORE THAN ONE PERSON ASK: Do you have any dependent children living with you?

Yes	1
No	2

110

(c) IF YES, ASK:

How many dependent children live in your household?

☐ 111

(d) Are there any persons outside your immediate family living in this house? (includes tenants)

Yes	1
No	2
Refused	9

112

(e) IF YES:

Do these persons share your home or do they live in a self-contained suite or apartment?

IMMEDIATE FAMILY = PARENTS, CHILDREN, GRANDPARENTS, GRANDCHILDREN

Share	1
Suite/Apt.	2
Refused	9

113

Q.11 What is your present marital status? (PROMPT, IF NECESSARY)

DO NOT READ

Single	1
Married	2
Separated/ Divorced	3
Widowed	4
Other	5
Refused	9

114

Q.12 Which of the letters on this card best describes your total household income before taxes for 1981?

HAND CARD

A. Under $5,000	01
B. $5,000 to $9,999	02
C. $10,000 to $14,999	03
D. $15,000 to $19,999	04
E. $20,000 to $24,999	05
F. $25,000 to $29,999	06
G. $30,000 to $34,999	07
H. $35,000 to $39,999	08
I. $40,000 and over	09
J. Don't know, refused	99

115, 116

Q.13 Could you tell me in which year you were born? IF REFUSE, CODE 99. RECORD

Year 19		

117, 118

Q.14 DO NOT ASK: SEX OF RESPONDENT

Male	1
Female	2

[illegible]

Thank you very much. Those are all the questions I have. Do you have any comments you would like to make?

____

____

____

120 121

Could I please get your name and telephone number in order that this interview can be verified by my supervisor.

Name: ____________________________________

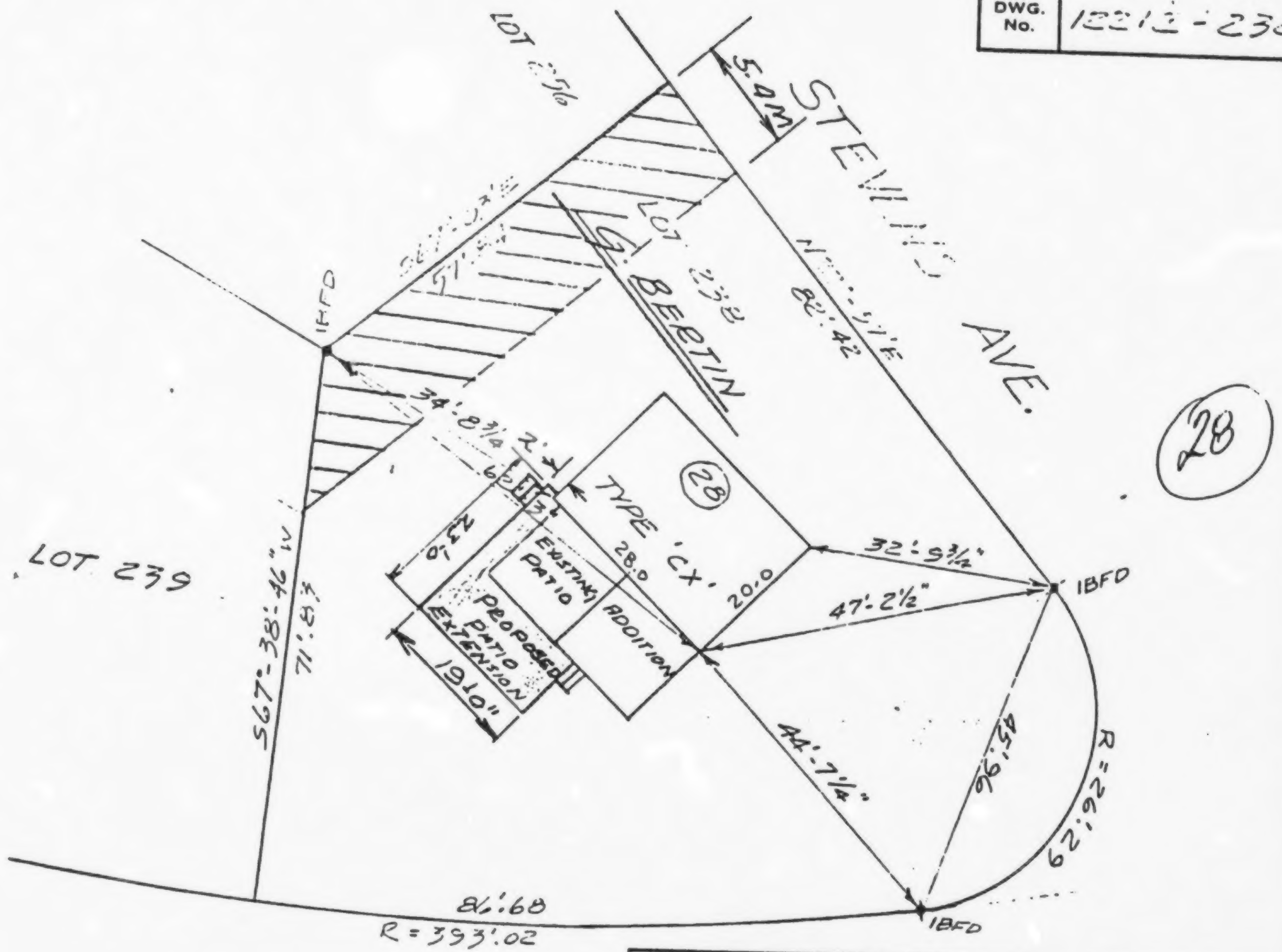
Telephone: ________________________________

____

122 123

Appendix D

DWG. No. 12212-238


28
STEVENS AVE.
5.4M
82.42
LOT 256
LOT 238
G. BERTIN
IBFD
34'.8¾
2'
6'
3'
TYPE 'CX'
28
28.0
20.0
EXISTING PATIO
ADDITION
PROPOSED PATIO EXTENSION
23'0
19'0"
32'.9½"
47'.2½"
44'.7¼"
45.96
R=26.29
IBFD
IBFD
LOT 239
S67°-38'-46"W
71.83
81.68
R=393.02
KING STREET

REVISED OCT. 5/82

REG PLAN M-119 SCALE: 20 FEET = 1 INCH

AUG. 3/54

MARATHON PAPER MILLS OF CANADA LTD.
MARATHON · ONTARIO

STEVENS AVE

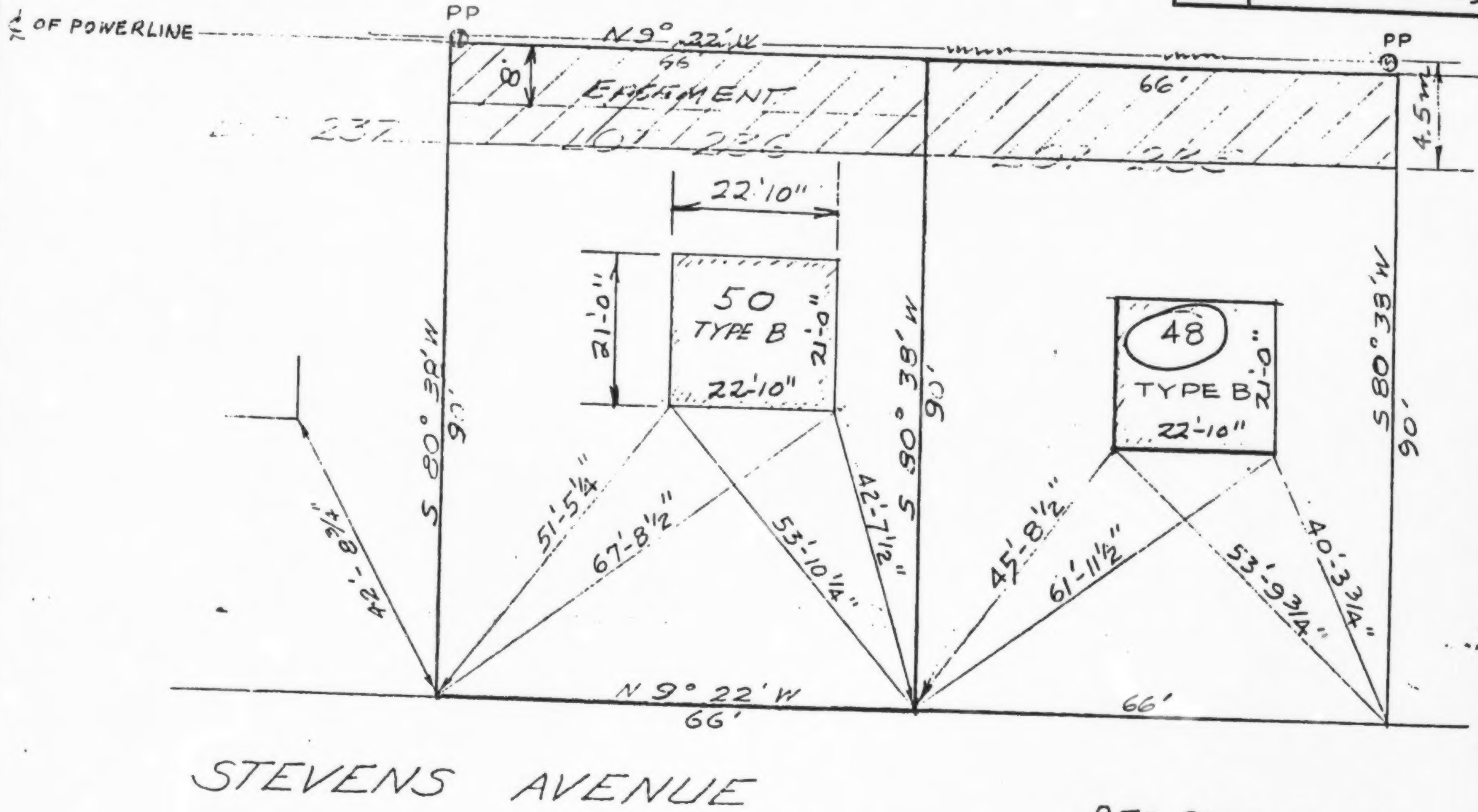
DRW'N. W/C.
CHK'D.
APP'D

DWG. No. 12212-238

Appendix E

48

DWG. No. TMS. 12212-235
-236



℄ OF POWERLINE
PP
N 9° 22' W
66'
PP
66'
8'
4.5m
EASEMENT
LOT 237
LOT 236
LOT 235
22'10"
21'-0"
50
TYPE B
21'-0"
22'-10"
48
TYPE B
21'-0"
22'-10"
S 80° 38' W
90'
S 80° 38' W
90'
S 80° 38' W
90'
42'-8 3/4"
51'-5 1/4"
67'-8 1/2"
53'-10 1/4"
42'-7 1/2"
45'-8 1/2"
61'-11 1/2"
53'-9 3/4"
40'-3 3/4"
N 9° 22' W
66'
66'
STEVENS AVENUE

REG. PLAN M-114

MARATHON PAPER MILLS OF CANADA LTD.
MARATHON · ONTARIO

STEVENS AVENUE

SCALE: 20' = 1 INCH

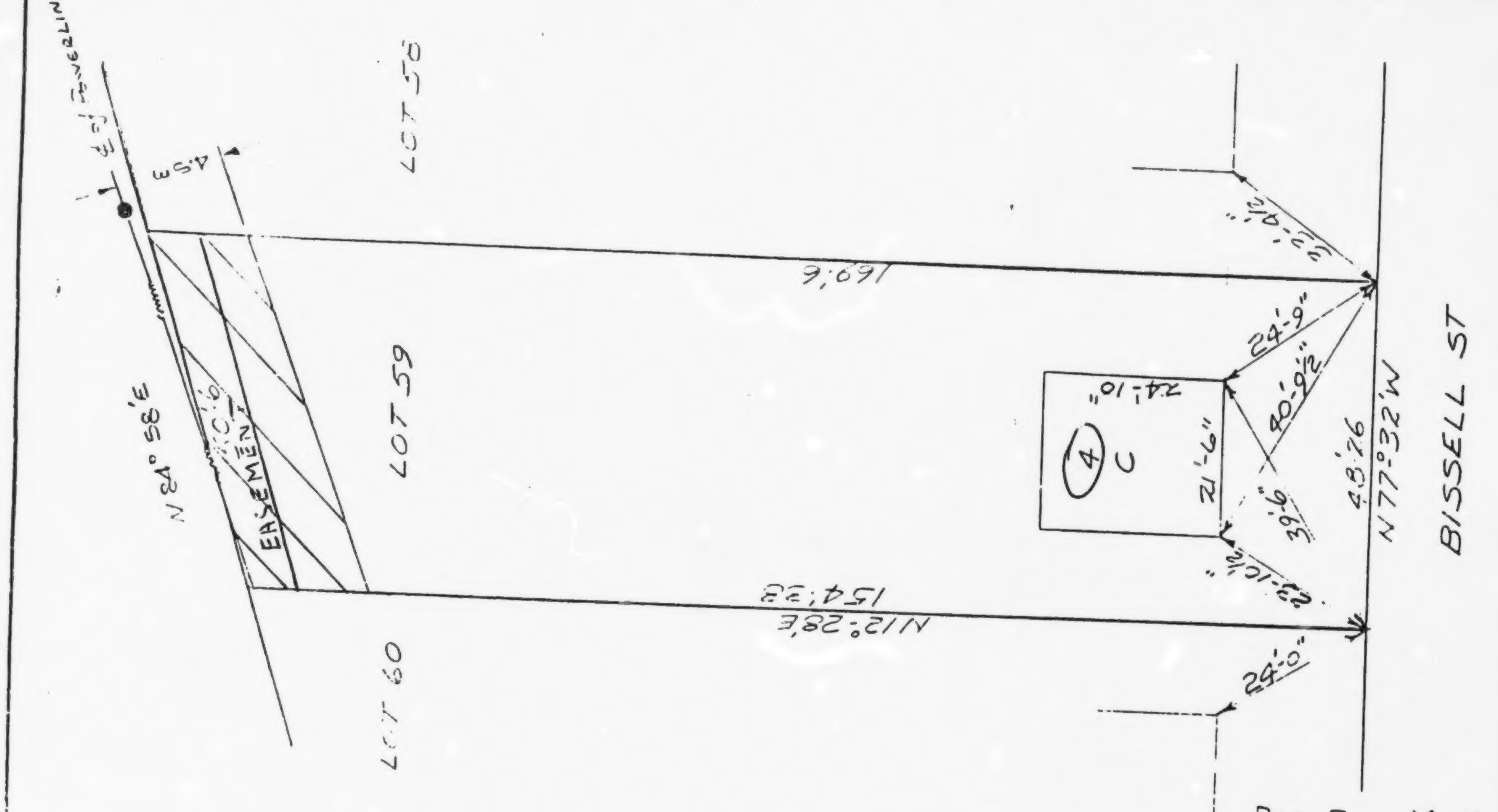
K.C.

DRW'N. T.L

DWG. No. 235

Appendix F

DWG. No.	12212 - 59


℄ of POWERLINE
4.5m
N 84° 58'E
EASEMENT
10'.6
LOT 58
LOT 59
LOT 60
169'.6
154'.33
N12°28'E
4
C
24'-10"
21'-6"
22'-0½"
24'-9"
40'-9½"
39'-6"
23'-10½"
24'-0"
48'.76
N77°32'W
BISSELL ST

REG PLAN M-114

SCALE 20'=1"

DATE REVISED: OCT 19/82

MARATHON PAPER MILLS OF CANADA LTD. **MARATHON . ONTARIO**	
4 BISSELL ST	
DRW'N. E. DAVIS	DWG. No.
CHK'D.	
APP'D.	TWS. 12312 - 59